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Electrical Contracting

With Which Is Incorporated

The Electragist



Ask the FA Man



There is an experienced and willing man in the office nearest you who will be glad to help you solve your panel-board and switchboard problems. He knows wiring plans and the new ideas in installation. Use him to help you better the job.



If you worry about panelboard jobs
blame yourself for not installing

FA Panelboards

"The Sign of a Better Job"

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Frank Adam
ELECTRIC COMPANY
ST. LOUIS

HERE *is the new* HUBBELL OUTLET..



INSPECT ITS REVOLUTIONARY FEATURES

HUBBELL presents with pride this new Convenience Outlet. In appearance, convenience and mechanical perfection it is a distinct achievement in wiring device design.

Its features are revolutionary. From the solid composition base to the unique Bakelite face, nothing has escaped improvement. The most severe tests prove it a superior outlet, and it carries the full approval of both Underwriters and Hubbell.

Go over the details given here. Note the simple, advanced design. See the advantages offered by this new outlet—Single and Duplex.

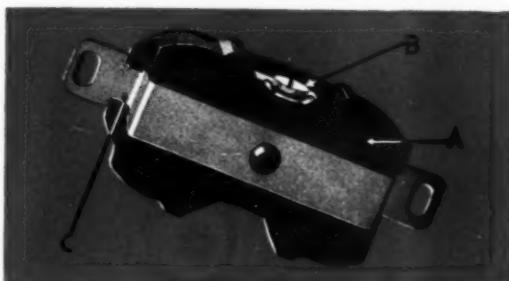
HARVEY HUBBELL, INC., BRIDGEPORT, CONN.
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UNIQUE SLOT-FINDERS—New Bakelite face of modernistic design incorporates unique Slot-Finders. A noteworthy convenience. No groping. Blades find their slots automatically, quickly and surely.



ONE-PIECE CONTACT SPRING—Guarantees perfect alignment and a positive electrical connection. Made of finest phosphor bronze.



A—NEW SOLID COMPOSITION BASE, moisture-proof, eliminates the fibre back which is objectionable under certain conditions.

B—BETTER WIRING AND INSULATING FACILITIES. Larger screws to hold No. 10 wire when desired. Binding plates and screws are in deep pockets with heavy side bosses of composition, well protected and insulated from side of wall and box. Wide Bakelite barriers insulate wiring cavity from face plate. Tapped bushing for plate screw is grounded to mounting strap, thus grounding the plate.

C—MOUNTING STRAP LOCKED TO FACE, for greater strength and rigidity, and more accurate spring alignment.

HUBBELL
convenience **OUTLETS**

Electrical Contracting

With Which Is Incorporated The Electragist

Victor A. Hanson,
Eastern Field Editor

S. B. WILLIAMS
Editor

Coit A. Smith,
Western Field Editor

Vol. 29

APRIL, 1930

No. 6

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RESALE PRICE NEWS

A number of price increases have been made this month in the Resale Price Section. The materials affected are:

Lead covered armored cable
Armored lamp cord
Ground clamps
Pipe straps or clamps
Square D switches

Reductions in price are shown in:
Loom
Jefferson transformers

A number of other items show minor price changes.

Prices on push buttons, treads, etc., have been revamped and a new set-up used which should make it easier for the contractor to find the commonly used articles. Also a more comprehensive listing of compound desk pushes has been added.

Wadsworth fuse cabinets have been added to the panel board listing.

The number of pipe straps per pound have been added to price listings on this line.

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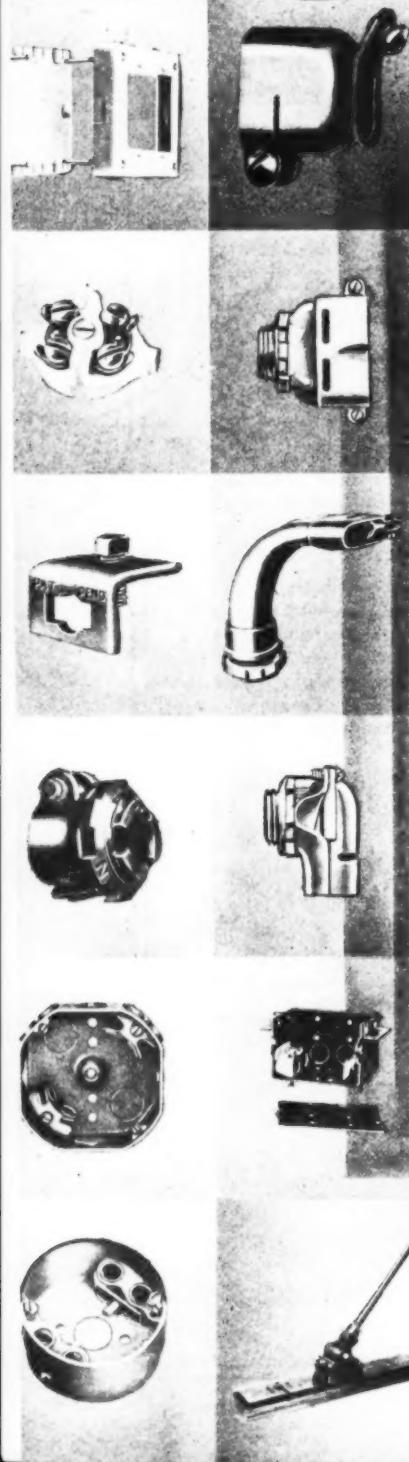
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| (B) AUTODUCT CLOSELY WOVEN FLEXIBLE TUBING HIGH LUSTER LACQUER FINISH FOR AUTOMOBILE WIRING—MOISTUREPROOF AND FLAMEPROOF. |
| NON-METALLIC SHEATHED CABLE |
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| Wires and Cables |
| BARE RUBBER COVERED WEATHERPROOF FLEXIBLE CORDS |
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1

RIGID CONDUIT

A



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B



ECONOMY RIGID CONDUIT, SPELLERIZED SCALE-FREE STEEL PIPE COATED INSIDE AND OUT WITH HIGH GRADE BLACK ENAMEL.

C



OVALDuct UNDERPLASTER OVAL STEEL RACEWAY—THREE-WIRE SYSTEM.

D



NEPCODUCT UNDERFLOOR DISTRIBUTION SYSTEM FOR HIGH AND LOW POTENTIAL SERVICE.

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ECONOMY BOXES

BAR HANGERS

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OVAL ARMORED CABLE

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METAL MOLDING

FITTINGS & DEVICES

NON-METALLIC FLEXIBLE TUBING

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WIRES & CABLES

FLEXIBLE LAMP CORDS

PORTABLE CORDS

FLEXLAY DITCH CAB

PARKWAY CABLE

BRACKETS WIREHOLD

BLES



National Electric Products Corporation
National Metal Molding Division
Pittsburgh, Pa.

S I M P L E



ROMEX

... for housewiring !

RomeX is easy to use because simplicity is its outstanding characteristic. It requires no knobs or tubes, no conduits. It is as easy to string as wash line. It may run right through holes in joists or studs, right along the wood itself.

Every old house should be rewired with RomeX. Every new house should be RomeX-ed. RomeX means more convenience outlets . . . and that means more sales.

Send for the informative book that explains this advanced house wire . . . that shows why RomeX is quicker to use, safe, neat, economical. Rome Wire Company Division of General Cable Corporation, Rome, N.Y.

ROME WIRE COMPANY DIVISION
OF
GENERAL CABLE CORPORATION



The Specialist

IN this issue ELECTRICAL CONTRACTING is focusing attention upon an idea that it has been studying and promoting for the past year—specialization for the electrical contractor.

One of the curses of the wiring business has been the leveling process of price competition. With inspection by the city or by the underwriters, the customer has had no hesitancy in taking a low bid.

Where every contractor is competing with every other contractor for the same work, what has any one of them to sell other than price?

Price competition is not profitable for anyone. It brings in its train the tendency to cut down the job.

• • •

IN the last ten years the field of electrical application has grown tremendously, with the result that it is no longer possible for any electrical contractor to be thoroughly up-to-date on all of its ramifications. It is becoming more and more necessary, therefore, for contractors, instead of trying to know all about everything, to know a whole lot about some one or two parts of the business.

In other words electrical contractors must specialize. Those who do will, as a rule, be found to be the most prosperous.

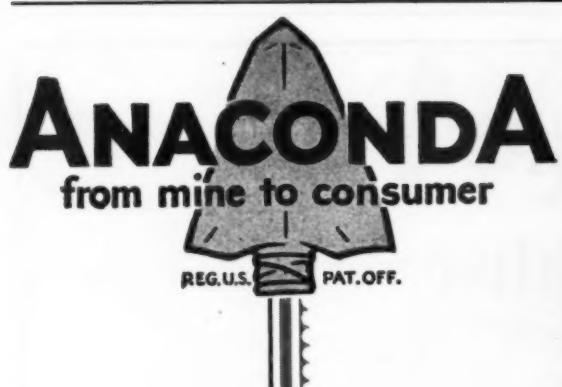
In large metropolitan areas the field will offer enough opportunity for them to concentrate on their specialty. In smaller places it will be necessary to carry on a general wiring business with the specialties.

This program means better contractors and better jobs. A specialist will not sell a job until he is satisfied that the customer will be satisfied. That means a more adequate job—more materials, larger energy bills.

• • •

IN fostering this movement, therefore, ELECTRICAL CONTRACTING believes that it is building business for the entire industry along the right economic lines. Already many hundreds of contractors are specializing and hundreds of others have expressed their interest.

ELECTRICAL CONTRACTING urges everybody to study the possibilities in contractor specialization and to lend encouragement to the movement wherever possible.



Increase Your Volume... *sell more outlets*

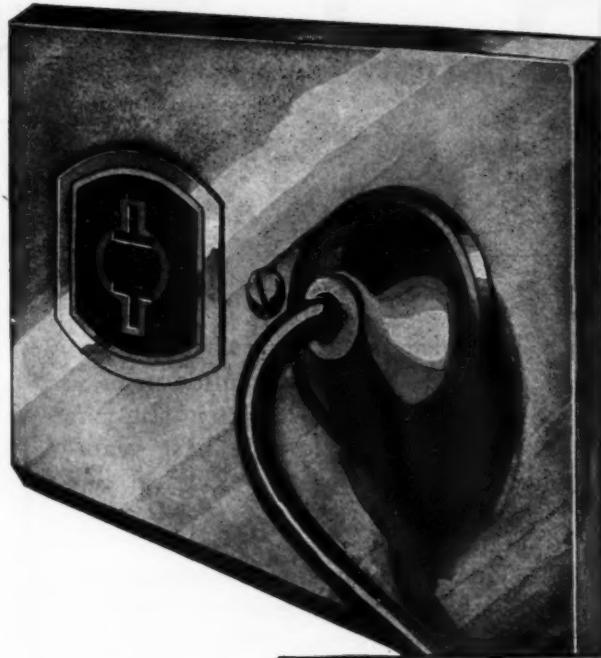
Electric service can never go farther than the wires which carry it. That's an obvious enough fact, but most of your customers need to be reminded of it.

Adequate wiring provides real economy of time and effort for the consumer. The installation of extra convenience outlets encourages the purchase and use of more appliances and means *increased sales of wiring products for you*.

This year and every year, sell extra outlets with every wiring job!



Anaconda safeguards quality from mine to consumer—provides a nationwide service, prompt, dependable, complete.



WIRING PRODUCTS

Rubber-covered Wire

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ABC Armored Cable

Durax Sheathed Cable

Duraduct Loom

Duracord Heavy-duty Cord

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Electrical Contracting

With Which Is Incorporated The Electragist

APRIL, 1930



"JOHN," said Henry Trimmer as he met up with John Wise, the contractor who knows how to make money, "I've been thinking about some of the things you said recently and I about made up my mind to take up a couple specialties like you advised. I c'n see how tha'd be more profitable, especially right now when it looks like we all got to work quite a bit harder for every dollar we take in. What's that slogan you quoted? '**Contractors wise specialize.**' That's me from now on."

"But, how do you go about being a specialist, anyway? I don't hardly know where to take hold."

"That's easy," replied John Wise, "talk to your jobber's salesman."

"Them catalog toters?—say, they got ten, twelve thousand items to handle. If there's one thing they ain't, it's a specialist."

"Lissen, Henry," said John, "you still got ideas in your noodle that was put there twenty years ago and ain't been dusted off

Specialists Sell Time, Material and BRAINS

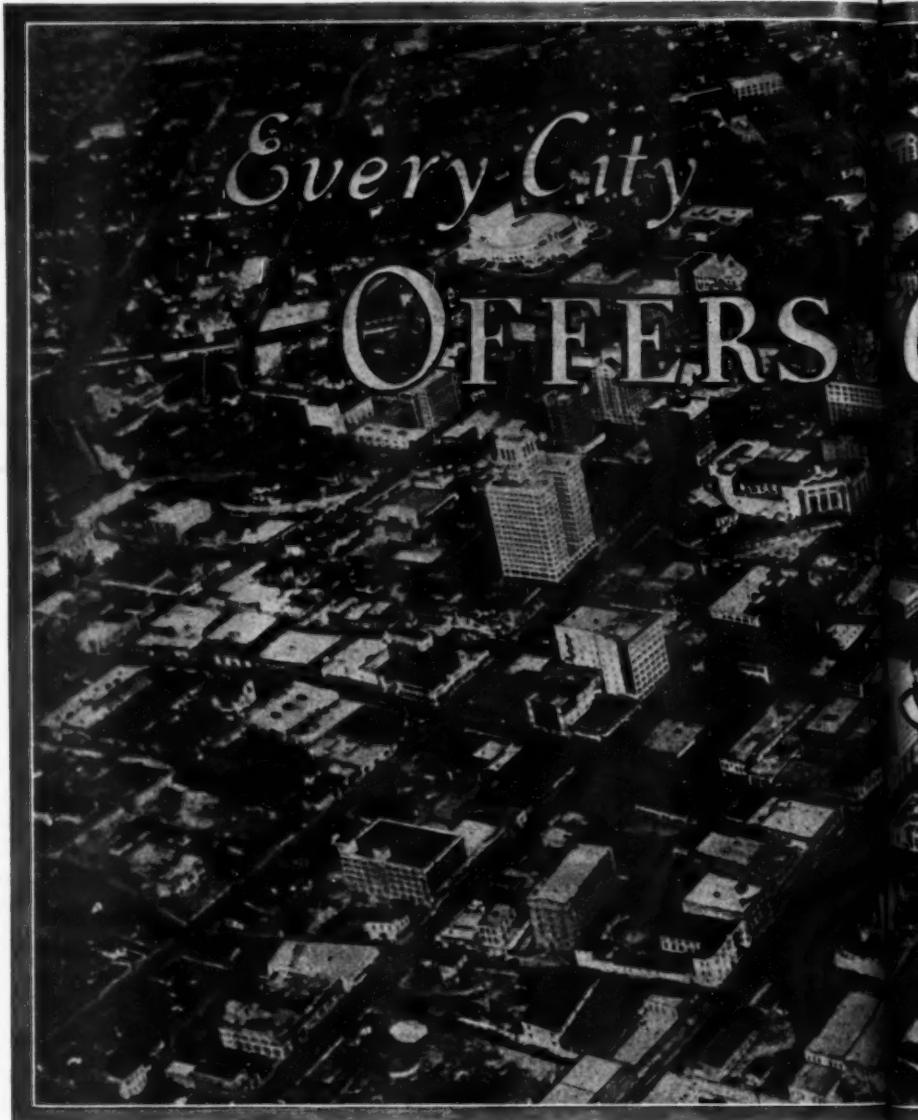
since. This notion that a jobber's salesman is nothin' but a catalog toter is th' mildewed hooey. Sure, the boy's got ten, twelve thousand items to handle—some of 'em got twice that many—but they've got only ten, twelve lines. One catalog has 393 bells and pushes and that truck, 255 instruments, 454 panel boards with variations. There's only four lines with something better'n a thousand items, but about all th' salesman has to know is where to find 'em in th' book. He don't have to know the whole caboodle by their first names.

"Th' result is, Henry, that a lot o' these jobber lads has come to be specialists themselves. They kinda cotton to certain lines and get to know a lot about 'em and if you let on like you was interested they'll fill you full o' just the very dope you're looking for."

"BUT lemme tell you one thing, Henry, you gotta change your buying habits when you deal as a specialist. You can't get nowhere in that game if all you talk about is **price**. You can't aim to be a cheese-paring specialist. The real specialist sells something else besides price and discounts. You gotta keep that idea in mind both **when you buy** and **when you sell**. You gotta remember this—the ordinary contractor sells time and material, but the specialist sells time and material and brains—and he gets paid for all three."

CONTRACTORS WISE SPECIALIZE

1. Power installation
2. Industrial maintenance
3. Motor repairs
4. Factory lighting
5. Elevator wiring and maintenance
6. Floodlighting
7. Sound wiring
8. Talking movies
9. Ventilation
10. Sign hanging and maintenance
11. Oil heater installations
12. Red Seal wiring
13. Rewiring, residential
14. Store and office remodelling
15. Apartment house work
16. Small repairs
17. Garage wiring
18. Antenna installation
19. Radio wiring





Opportunities for Specialization

- | | | |
|--------------------------------|-------------------------|---|
| 20. Refrigeration installation | 24. Interior telephones | 35. Hospital work |
| 21. Farm line construction | 25. Radio interference | 36. Playground and outdoor sport lighting |
| 22. Farm wiring | 26. Appliance repairs | 37. Airport wiring |
| 23. Low tension work | 27. Filling stations | 38. Theatre wiring |

- | |
|--------------------------------------|
| 28. Restaurant wiring and lighting |
| 29. Chain stores wiring and lighting |
| 30. Show window lighting |
| 31. Garment shop wiring and lighting |
| 32. Street lighting |
| 33. Church lighting |
| 34. School work |

CONTRACTORS WISE SPECIALIZE

INDUSTRIAL VENTILATION

By Thomas C. Miller

THOMAS C. MILLER, INC.
NEW YORK, N. Y.



I BECAME interested in ventilation prior to the war, when an ordinance was passed in this city, which if carried out would have required an enormous amount of ventilating work. The law was not practical and therefore was

never enforced.

Seeing the possibilities, however, in ventilation, I took a course thoroughly acquainting myself with the work. Then along came the war, and my knowledge proved more than valuable. I was kept busy designing and installing ventilating systems for the munitions plants.

Since then, of course, I have devoted a good deal of my time to industrial ventilation. The work is fascinating and enables us to give our customers a distinct service. We now employ on the average eighteen men for electrical and ventilating work, exclusive of sheet metal work. One-third of our total business is ventilation, and we estimate that this one-third is extra business which we could not obtain had we not specialized.

* * *

HIGH LINES

By T. C. Haggard
AMITY, ARK.

I STARTED out small and have never turned down any worthwhile work. Sooner or later, I believe, every contractor will develop some part of his business until it becomes a specialty. I like high lines and have had a lot of this work by



OIL WELL WIRING

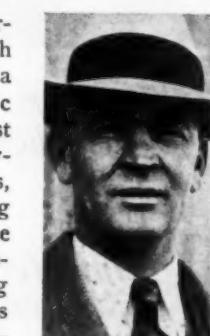
By H. L. Owens
OKLAHOMA CITY, OKLA.

I WAS formerly with the Oklahoma Gas & Electric Co., as specialist in electrical service for oil wells, and while doing that work became sold on the proposition of going in for myself as an electrical contractor doing this class of installations exclusively.

The requirements for both lighting and power are large and important; the work is peculiar and exacting because everything must be in perfect

going out of my way after it. I like it because there is really no limit to the extension of lines and besides the business a fellow gets, it is nice to know you are helping extend the use of electricity in the rural districts.

* * *



Specialists can be full time or part-time depending upon the volume of work available. From the statements of the contractors in these pages it is apparent that there is more opportunity in specialization than in run-of-mine competitive work.

order at all times. The material ranges from incandescent lamps to large motors, air compressors, safety switches, automatic controls, etc.

I am in this to stay because I believe primarily in specialization, and because the field is not overcrowded.

* * *

MARINE WORK

By George Frick
RAY ELECTRIC CO.
NEW YORK, N. Y.

FOR thirty-five years I have been in the electrical business. I devoted my entire time to contracting until fourteen years ago, when I became interested in the possibilities of marine electrical work. I found such a good opportunity to give a real service in this field, that, in 1919 I really became a specialist. At this time I had only desk room in an office.

In 1923 Jos. Buehler, Jr., formerly of Hatzel and Buehler, joined me as a partner. We expanded rapidly, and our business became highly specialized. We now have our own ar-



CONTRACTORS WISE SPECIALIZE

a Specialist

time It is also apparent, however, that one does not become a specialist just by wishing. The specialist has to "know how" and as that the successful specialists point out, every job done by a man who "knows how" brings other jobs.

ture shop, and machine shop, and are prepared to do any kind of marine work. One of the greatest services we can perform by specializing is by being in a position to manufacture parts of broken foreign equipment, thus getting vessels out of port with the minimum possible delay.

As a result of our ability to give this service we now have among our customers The Clyde Line, The Dollar Line, The Columbian Line, The Royal Mail Line, The U. S. Line, The International Mercantile Marine, and the United Dry Docks. One of our present jobs is installing the electrical work during the re-conditioning of the Leviathan.

The building up of this volume of business has been due to our specialization and ability to give service in this class of work.

* * *

APARTMENT HOUSE WIRING

By N. Owen Houghton

DELTA ELECTRIC COMPANY
WASHINGTON, D. C.

WE GOT started in apartment house wiring in a most unromantic manner. Our first few jobs were acquired through competitive bidding. It might be said we bought our way in and are selling our way out.

After an apartment house job, especially the larger type, is finished to the satisfaction of the owner, the

contractor who installed the electrical work is looked upon by that owner as an authority. After a few of such jobs, one's reputation grows rapidly. In a short time he finds jobs coming his way because of his ability to give advice on methods of electrical installation. The owners are sold on the firm's quality of work.

We have wired more than 200 apartment houses and are now selling four outlets in every apartment living room, and two or three outlets in each bedroom. We have been able to completely equip large apartment houses with dishwashers and all of our later installations with centralized radio. This has all been made possible by specializing in this work, resulting in owner confidence in us.

* * *

FINISHED HOUSEWIRING

By A. D. Shaw
ALBANY, N. Y.

THERE are great possibilities for specialists in any branch of the electrical industry, for it enables them to concentrate their efforts in a field with which they are best

acquainted and like most.

I became a specialist in the wiring of completed residences because I felt that in this field there was the opportunity to perform a particular service, inasmuch as I would be able to devote my time to the study of more efficient methods of operation in this special division of electrical work.



By being in a position to give this service I could also do a better selling job. I obtained a considerable quantity of this work by a definite selling program, regardless of competition and without cutting price. It has certainly paid me to specialize.

* * *

RESTAURANT EQUIPMENT

By M. Edwin Arnold
PHILADELPHIA, PA.



NOT so long ago we found that a number of restaurants were calling on us for service after regular working hours when they could not get their various electricians. We then learned that every restaurant man has a number of problems and also his own ideas for methods of operation. It was decided, therefore, that we could, by specializing in this class of work, give a much needed service to the restaurant men, and at the same time increase our own business.

Our predictions came true, for we found there were many ways in which we could apply our electrical knowledge in studying restaurant operation.

This specialization has enabled us to give a real service to the restaurant

CONTRACTORS WISE SPECIALIZE

industry and as a result we have a very much larger volume of business of the non-competitive type, and consequently at a better profit.

* * *

SIGN INSTALLATION

by Charles Serwich
B. AND B. SYSTEM INC.
SHREVEPORT, LA.



The selling, installing and servicing of electric signs is known to be a regular business by itself. It is a very desirable business in my opinion both because of the large number of potential customers and because a successful installation always leads to other business.

* * *

COMMERCIAL WORK

by Albert I. Korenblat
I. K. ELECTRIC CO.
NO. LITTLE ROCK, ARK.

MANY contractors hesitate to point out a specialty in their business for the reason that it may be taken to indicate a lack of ability in other branches. Our firm advertises "We do Everything Electrical," but like others we have a class of business which we feature. That is the work known as commercial work which takes in remodeling, new wiring, lighting installations, and repairs. This work calls for much speed and close attention but is productive of



a steady increase in volume and through proper handling adds to the company's reputation for doing difficult work on short notice.

* * *

INDUSTRIAL WORK

by H. W. Schirmer
SCHIRMER BROS.
NEW YORK CITY



THE specialty with which I am concerned happens to be the installation of electric signs. Whether these are large or small the installations have to be thoroughly and carefully made and they are complicated.

We made a study of industrial work, were appointed a motor agent and started out to give a real personal service in this field. That we have succeeded is shown by the fact that today 75 percent of our business is industrial work and we are doing a bigger business on an increased margin of profit.

Specialization gives a man an opportunity to apply his knowledge of electrical work to his customer's problems. Today this service is a most vital part of any progressive selling program.

* * *

INDUSTRIAL MAINTENANCE

by H. H. Schwartz
ROSE CITY ELECTRIC CO.
LITTLE ROCK, ARK.

MY earlier training was along the lines of service and maintenance of electrical machinery, with the Allis - Chalmers Co. and others. Therefore, when I decided to go in business as an electrical con-

tractor I leaned towards this end of the industry, in fact I began to specialize at the very beginning.

My firm sticks closely to generator repairs, armature winding and inspection service. This specialty requires extra equipment and specially trained men, also there is much rush work, but as a whole this kind of work is very worth while.

Probably the best thing about it is that a large list of regular customers can be built up. These customers not only give their own repeat business but recommend us to others.

* * *

MOTOR REPAIRS

by Gilbert Wood
WOOD-WARNER ENG. CO.
NEW YORK, N. Y.



OUR organization started in the electrical business about thirty-five years ago. We conducted a general electrical contracting business, similar to most electrical contractors in those days, but some time ago we decided that

one can do only one thing well, so we decided to devote our energies to just one branch of the industry.

Our past experience had shown us the need for a special service in motor repair. So we were not long in developing a complete shop to handle this work in a specialized way. Aside from our regular shop we have a complete armature winding department, a machine shop, and a commutator manufacturing department. Not only our organization but all of our men are specialists. They have been trained in our own organization for their particular work.

We not only specialize, but have found a specialty within a specialty. We have pioneered in the repair of electrical vehicle motors and elevator motors. As a result of our specialization, we are now doing one of the largest business in these two branches in the country.

Motor Specialists' Plan for Industrial Remotorizing

By

LOUIS KALISCHER, Chairman

*Motor Specialists Section
Association of Electragists, International*

THE major program of the Motor Specialist's Section of the Association of Electragists is a nation-wide drive for industrial remotorization. Primarily, this is a plan to sell to industrials the idea of replacing all motors that are obsolete, are in bad state of repair, where speed conditions or characteristics are unsuitable for the work or where a machine is underpowered.

There are too many obsolete inefficient machines and methods in all industry. The introduction of modern efficient machinery, properly motorized, will give improved quality and lower costs.

The remotorization program of the motor specialists is aimed to place the small manufacturer in a position to secure the benefits of mass production as applied to business.

In order to make the plan effective in any locality where there is a Motor Specialist's Chapter, the following program has been approved:

1 The plan to become effective is dependent upon local conditions. Where there is an active electrical league its approval and co-operation is essential. Otherwise the activities should have the approval of a committee of the Chamber of Commerce.

2 An executive committee shall be selected, the members of which shall represent all the branches of the local electrical industry. This committee shall be responsible for the direct contact with the local electrical league and the local trade organizations or Chamber of Commerce, and shall approve all statements, advertising and general plans.

3 A survey of the motor conditions that prevail in the territory shall be made, the details of which will be handled by a working or general committee consisting of engineers and sales-

men representing the various motor manufacturers. Plan provides that this committee shall meet daily and by means of consultation and data assist the motor specialist or contractor on any particular installation that may be under consideration. It shall not be the purpose of this committee to secure leads and pass them around, but rather to assist the motor specialist or contractor to close any business that he might have dug up.

4 The plan further provides that the working committee shall have available at its headquarters advertising in the form of circulars, letters, etc., which may be used by the contractor or motor specialist; that it shall have on file complete information as to the latest type of apparatus that may be used to advantage; that it shall have on file an analysis of the territory so that any motor specialist may know, at a glance,



the different classifications of industrials in the district and their number; and, finally, that it provide the opportunity for representatives of different manufacturers, such as ventilating companies, to give talks on the field for increased business in their particular commodities.

5 An advertising committee shall be formed for the purpose of preparing statements for the newspapers and advertisements and notices to be used by the members of the association.

6 A control and finance committee shall be set up for the purpose of securing the finances for and directing the expenditures of the campaign.

7 As soon as committees have been appointed the program for the drive for industrial remotorization shall be announced at a general meeting.

CONTRACTORS WISE SPECIALIZE



Earl N. Peak, president of the Marshall Electric Company of Marshalltown, Ia., and vice-president, Association of Electragists, International, has spent fifteen years promoting the use of electricity on the farm and extending power lines through the state of Iowa. He has built over 1,400 miles of transmission lines and has electrified over 3,000 farm homes and numerous country towns and villages.

SUCCESS of



Construction crews work under a superintendent of outside construction, in four divisions, each in charge of a foreman. Hole digging, tree trimming, and pole setting; wire stringing; transformers; and inside wiring. Each crew is timed to follow without loss of time. Waste is eliminated by having all the necessary materials on the job before the arrival of the crew. There are 135 men regularly employed in this construction department, in addition to salesmen who make contracts for wiring, and engineers who lay out the work.



The pole raising crew follows immediately on the tracks of the digging crew. The stockmen have supplied the assembled poles and cross-arms, and this crew is specialized in handling the one job of raising poles.

The guying or anchor crew follow up the pole-raising crew. To the lower right of the illustration, one of the stock trucks is shown, which carries ample stocks of supplies for each job, moving from pole to pole quickly, without loss of time or material by unloading until supplies are actually used.

CONTRACTORS WISE SPECIALIZE

Farm Line Specialist *found to lie in SYSTEM*



The trimming crew follows next, and clear the right-of-way of all branches or foliage. Each man has his job, and knows exactly what to do when he starts out in the morning, eliminating loss of time in getting on the job. Each crew works from its own truck.



The wire-stringing crew meet at an appointed place in the morning, and drive immediately to the job, carrying all the supplies necessary for the day's work on their truck. Careful planning by the crew foreman has brought the crew to a high standard of efficiency, and the men take great pride in carrying on their work on schedule.



The Marshall Electric Company made a convenient warehouse out of an old brick plant. The railroad side-track extends through the entire property and small tracks extend from the round kilns, which are used as storehouses, to a long main warehouse shed, formerly used for stacking finished brick. Small trucks run on the tracks and provide an easy method of handling heavy wire, transformers, and other stock. When a sufficient number of contracts for a line have been secured, the company's engineers survey the proposed extension, lay out the job and make an estimate of the material required. Poles are purchased and shipped direct to the job; while wire, arms, hardware, and transformer equipment are sent out from the warehouse to the job, where a convenient barn or old house is leased to use as a temporary store-room. Sufficient stock is always on hand to erect fifty miles of transmission line.

CONTRACTORS WISE SPECIALIZE

Factors to be considered by a **SHOP**



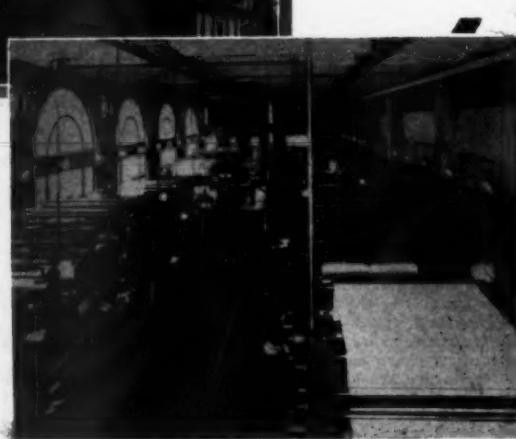
We have just moved to our new shop, located on a main thoroughfare in the downtown section. Before taking this step we analyzed our business and market with a view to giving the best service.



Map showing relative location of shop to that of the large industrials, small industrials, freight and express stations, electrical supply jobbers.



We found that approximately 50 per cent of our business was with large industrials, located toward the outskirts of the city. Ordinarily this would be a fairly strong inducement to move into this vicinity, but, when we consider the layout of the city, we find that the harbor divides the section of large industrials almost at its center. To reach all of these industrials on both sides of the harbor in the least possible time would mean a location at the apex of the harbor.



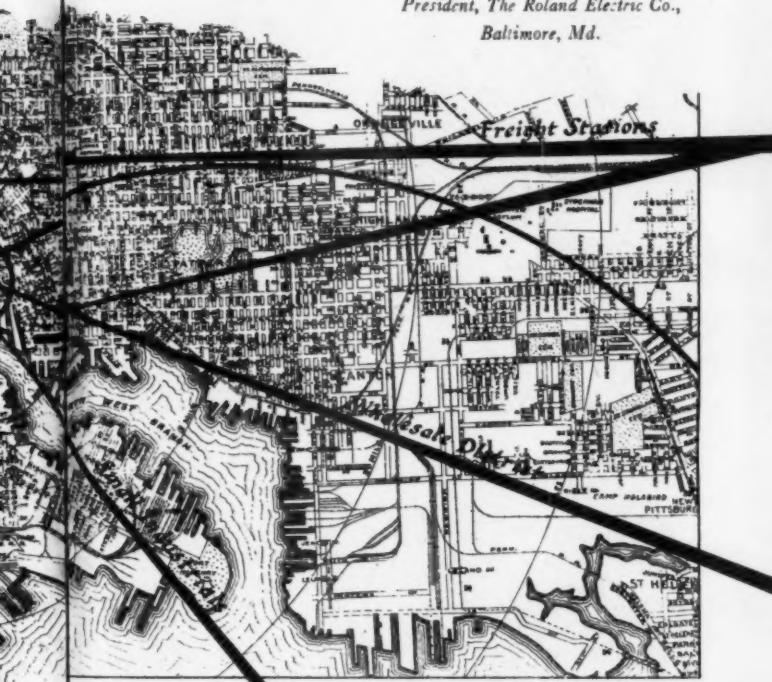
In determining in what part of the downtown section we should locate there were other factors. For instance, we do work for all three of the Baltimore newspapers. These customers must have quick service. Our shop is within nine blocks of them all.

CONTRACTORS WISE SPECIALIZE

a Motor Specialist in determining- LOCATION

By J. ROLAND STOLZENBACH

*President, The Roland Electric Co.,
Baltimore, Md.*



Our haulage costs are a considerable amount over a yearly period. We save about 50 per cent by being near the freight and express terminals.



The other half of our business is divided among small industrials, shops, printers, etc. These are largely in the downtown section of the city, which is also located at the apex of the harbor. Hence our decision to move to the downtown section of the city.

Being near one's jobbers is a great convenience, especially when sending for rush orders. We are on the edge of the wholesale district.

CONTRACTORS WISE SPECIALIZE



CONTRACTORS WISE SPECIALIZE

The
**PROFIT
MAKERS**

Random photographs of electrical contractors from every part of the country who have prospered by becoming specialists.

4TH INSTALLMENT

Motor Wiring Tables

Compiled by

A. L. ABBOTT

Tables covering direct current, single phase, all types of 2-phase and 3-phase motors for up to 550 volts appeared in the previous issues. With this installment covering 2200 volt motors of the different types the tables are concluded. With the complete set of tables a contractor will have complete wiring information for any commercial motor in the commonly used sizes.

TABLE 7. 2200 VOLT 2-PHASE SQUIRREL CAGE INDUCTION MOTORS

| H.P. | Full Load Amperes | Size Wire | | Size Conduit for 3-Conductor Lead Covered Cable | Running Protection** Max. Setting Time Limit Protective Device, Amperes | Branch Circuit Protection Reduced Voltage Starting | |
|------|-------------------|----------------|------------------|---|---|--|--|
| | | Rubber Covered | Varnished Cambic | | | Max. Rating Fuses*** Amperes | Max. Setting Time Limit Protective Device*** Amperes |
| 25 | 6 | 14* | 14* | 1 $\frac{1}{4}$ | 7.50 | 15 | 12 |
| 30 | 7 | 14* | 14* | 1 $\frac{1}{4}$ | 8.75 | 20 | 14 |
| 40 | 9 | 14* | 14* | 1 $\frac{1}{4}$ | 11.25 | 25 | 18 |
| 50 | 11 | 14* | 14* | 1 $\frac{1}{4}$ | 13.75 | 30 | 22 |
| 60 | 13 | 12* | 14* | 1 $\frac{1}{4}$ | 16.25 | 35 | 26 |
| 75 | 16 | 12* | 12* | 1 $\frac{1}{4}$ | 20.00 | 40 | 32 |
| 100 | 22 | 8 | 10 | 1 $\frac{1}{2}$ | 27.5 | 60 | 44 |
| 125 | 27 | 8 | 8 | 1 $\frac{1}{2}$ | 34.0 | 70 | 54 |
| 150 | 31 | 6 | 8 | 2 | 39.0 | 70 | 62 |
| 200 | 43 | 4 | 6 | 2 | 54.0 | 90 | 86 |

*It is generally considered better practice to use no wire smaller than No. 10 at this voltage.

**Circuit-breakers are required for the running protection of motors operating at this voltage. N. E. C. 5006-a.

***It is generally considered better practice to use circuit-breakers for the protection of motor circuits operating at this voltage.

TABLE 8. 2200 VOLT 2-PHASE MOTORS, WOUND ROTOR INDUCTION AND REACTANCE TYPE SQUIRREL CAGE

| H.P. | Full Load Amperes | Size Wire | | Size Conduit for 3-Conductor Lead Covered Cable | Running Protection** Max. Setting Time Limit Protective Device Amperes | Branch Circuit Protection Wound Rotor | | Branch Circuit Protection High Reactance Type | |
|------|-------------------|----------------|-------------------|---|--|---------------------------------------|---|---|---|
| | | Rubber Covered | Varnished Cambrie | | | Max. Fuse*** Rating Amperes | Max. Setting Time Limit Protective Device Amperes | Max. Fuse*** Rating Amperes | Max. Setting Time Limit Protective Device Amperes |
| 25 | 7 | 14* | 14* | 1/4 | 8.75 | 15 | 10.5 | 20 | 14 |
| 30 | 8 | 14* | 14* | 1/4 | 10.00 | 15 | 12.0 | 20 | 16 |
| 40 | 10 | 14* | 14* | 1/4 | 12.50 | 15 | 15.0 | 25 | 20 |
| 50 | 12 | 14* | 14* | 1/4 | 15.00 | 20 | 18.0 | 30 | 24 |
| 60 | 14 | 12* | 14* | 1/4 | 17.50 | 25 | 21.0 | 35 | 28 |
| 75 | 17 | 10 | 12* | 1/4 | 21.25 | 30 | 25.5 | 45 | 34 |
| 100 | 22 | 8 | 10 | 1/2 | 27.5 | 35 | 33.0 | 60 | 44 |
| 125 | 27 | 8 | 8 | 2 | 34.0 | 40 | 40.5 | 70 | 54 |
| 150 | 32 | 6 | 8 | 2 | 40.0 | 50 | 48.0 | 70 | 64 |
| 200 | 45 | 4 | 6 | 2 | 56.5 | 70 | 67.5 | 90 | 90 |

TABLE 9. 2200 VOLT 3-PHASE SQUIRREL CAGE INDUCTION MOTORS

| H.P. | Full Load Amperes | Size Wire | | Size Conduit for 3-Conductor Lead Covered Cable | Running Protection** Max. Setting Time Limit Protective Device, Amperes | Branch Circuit Protection Reduced Voltage Starting | |
|------|-------------------|----------------|-------------------|---|---|--|--|
| | | Rubber Covered | Varnished Cambrie | | | Max. Rating Fuse*** Amperes | Max. Setting Time Limit Protective Device*** Amperes |
| 25 | 7 | 14* | 14* | 1/4 | 8.75 | 20 | 14 |
| 30 | 8 | 14* | 14* | 1/4 | 10.00 | 20 | 16 |
| 40 | 10 | 14* | 14* | 1/4 | 12.50 | 25 | 20 |
| 50 | 13 | 12* | 14* | 1/4 | 16.25 | 35 | 26 |
| 60 | 15 | 12* | 12* | 1/4 | 18.75 | 40 | 30 |
| 75 | 19 | 10 | 12* | 1/4 | 23.75 | 50 | 38 |
| 100 | 25 | 8 | 8 | 1/2 | 31.50 | 70 | 50 |
| 125 | 32 | 6 | 8 | 2 | 40.00 | 70 | 64 |
| 150 | 36 | 6 | 6 | 2 | 45.00 | 80 | 72 |
| 200 | 49 | 4 | 6 | 2 | 61.50 | 100 | 98 |

TABLE 10. 2200 VOLT 3-PHASE MOTORS: WOUND ROTOR INDUCTION AND HIGH REACTANCE TYPE SQUIRREL CAGE

| H.P. | Full Load Amperes | Size Wire | | Size Conduit for 3-Conductor Lead Covered Cable | Running Protection** Max. Setting Time Limit Protective Device Amperes | Branch Circuit Protection Wound Rotor | | Branch Circuit Protection High Reactance Type | |
|------|-------------------|----------------|-------------------|---|--|---------------------------------------|---|---|---|
| | | Rubber Covered | Varnished Cambrie | | | Max. Fuse*** Rating Amperes | Max. Setting Time Limit Protective Device Amperes | Max. Fuse*** Rating Amperes | Max. Setting Time Limit Protective Device Amperes |
| 25 | 7.5 | 14* | 14* | 1/4 | 9.50 | 15 | 11.25 | 20 | 15 |
| 30 | 9 | 14* | 14* | 1/4 | 11.25 | 15 | 13.50 | 25 | 18 |
| 40 | 11 | 14* | 14* | 1/4 | 13.75 | 20 | 16.50 | 30 | 22 |
| 50 | 14 | 12* | 14* | 1/4 | 17.50 | 25 | 21.0 | 35 | 28 |
| 60 | 16 | 12* | 12* | 1/4 | 20.00 | 25 | 24.0 | 40 | 32 |
| 75 | 19 | 10 | 12* | 1/4 | 23.75 | 30 | 28.5 | 50 | 38 |
| 100 | 25 | 8 | 8 | 1/2 | 31.5 | 40 | 37.5 | 70 | 50 |
| 125 | 31 | 6 | 8 | 2 | 39.0 | 50 | 46.5 | 70 | 62 |
| 150 | 37 | 6 | 6 | 2 | 46.5 | 60 | 55.5 | 80 | 74 |
| 200 | 52 | 4 | 4 | 2 | 65.0 | 80 | 78.0 | 110 | 104 |

*It is generally considered better practice to use no wire smaller than No. 10 at this voltage.

**Circuit-breakers are required for the running protection of motors operating at this voltage. N. E. C. 5006-a.

***It is generally considered better practice to use circuit-breakers for the protection of motor circuits operating at this voltage.

Electrical Contracting

With Which Is Incorporated The Electragist

S. B. WILLIAMS
Editor

Many Are Called But . . .

IT would be interesting to know some time the ratio of jobs secured to the number figured.

Recently one contractor said he figured about twenty for every one secured. What a waste?

If figures are carefully prepared they take time. Who pays for this waste time?

If, on the other hand, a contractor gets discouraged at securing such a small percentage of the jobs he bids on and no longer estimates but guesses, the situation is still worse—it is dangerous. He might get a number of those jobs.

This is merely another one of the penalties of price competition. To cut down the number of non-productive bids the contractor must have something to sell besides his price. All of which leads us back to the subject of this issue.

Contractors wise specialize!

Field Test Procedure

ONE of the reasons why it has been very difficult for a new wiring method to get recognition in the National Electrical Code is because there was never any reliable field test data gathered by any but interested parties. Had such unbiased field data been available once or twice in the past the Electrical Committee would have been in a position to make rules fair to the product and fair to the public without guessing and without recrimination.

Within the next two years a number of new wiring methods are going to be brought to the Electrical Committee for rules governing their use. Is the committee again to go through an unpleasant year or so because

of no field tests, or is the committee going to set up a procedure for field tests of new methods of some merit?

Such a proposal was laid before the committee at its annual meeting in February and it lost. Certain members were afraid that a definite procedure would prevent a fair trial. As a matter of fact a definite procedure is the only way to assure a fair trial for a new method. With standard procedure comparisons can be made and the results in one city checked against those in another.

A committee now has the proposal. Its recommendations will be awaited with interest and we trust that they will be favorable towards a liberal procedure for field trials.

Where the Money Goes

IN discussing the opportunities of the contracting business the other day some one said, "Well, if it's such a fine business, why haven't more contractors big bank accounts?"

The question is fair and the answer easy. Too few contractors are willing to live within the limits of their business.

Many a contractor is paying himself twice as much as the business can afford, either as a direct salary or in money he draws out at odd times. If he would take as salary, not as much as he wants, but only as much as the business can afford and then live within that salary, he would find that he was making a profit.

Contractors with small struggling businesses cannot live like lords, buy new automobiles, take trips, do a lot of expensive playing and still have much to show for their efforts.

As the old saying goes "You can't have your cake and eat it".

Bidding for School Work

AN analysis of the last four school jobs in Pittsburgh showed that in each of them the wiring contracts were performed at a loss. The wiring of the new White Plains, N. Y. high school had to be taken over by the bonding company and given to one of the "unsuccessful (?) bidders."

These are not isolated examples, they are typical of school work almost everywhere. School boards set a certain limit and when it is exceeded, the bids are thrown out and new tenders called. The net result, of course, is to hammer down the bids.

Is this an economical practice for a school board to follow? If the loss is too great the contractor will default and the work will be delayed until another contractor can be secured to carry on the work. When a contractor fails, men are thrown out of work for a time and the community generally loses.

Furthermore, there are few good contractors who will figure on school work because of this unsatisfactory condition. Can school boards afford to have school buildings wired by the poorer and less responsible contractors?

It would seem as though every electrical contractor's organization had a job of education to do with the school board—to show the board that the lowest bid is not always the best economy.

Not for Revenue

LIENSE, permit and inspection fees are not imposed for the purpose of providing a city with additional revenue, but solely to defray the expenses of a licensing and inspection department. For that reason all of the fees should be expended upon the work of the department.

However, in balancing the budget for the year some cities have reduced the number of electrical inspectors, apparently without understanding that the income for the inspection department does not belong to the city to do with as it pleases.

Any reduction in the number of inspectors works to the disadvantage of the contractors. A cut in the number of inspectors would bring delays in receiving final approval and also hasty inspections.

Do contractors want delays that will hold

up final payments? Do they want inspections so hastily made that almost anything will go, thereby increasing competition from unscrupulous sources?

If anything, more inspectors are needed and they should be paid a salary that will be more attractive to good men. An improvement in the inspection situation would undoubtedly have a beneficial effect upon the contracting business.

The Cost of Overtime

WHEN overtime is authorized on a job how much should the contractor charge for it? Should he charge just the extra cost of the labor, or the cost plus overhead, should he charge a profit?

Charles L. Eidritz, well known to electrical contractors, and now chairman of the Structural Steel Board of Trade of New York, has raised this question with his members and it is equally pertinent to electrical construction.

When a mechanic works four hours overtime every day for one week he becomes greatly fatigued and his efficiency is reduced. How much? Is there any relation between overtime and efficiency?

ELECTRICAL CONTRACTING would be very glad to have the opinions of its readers and particularly if any actual data is available.

Responsibility For Negligence

AMOST important decision with a direct bearing on reinspection was handed down on November 27 last by the Supreme Court of Ohio in the case of Jaffe, et al. vs. Powell, et. ux. (169 N.E. page 31) in which the court ruled "That if an owner of a building is negligent of fire hazards, and his tenants suffer fire losses because of such negligence, the tenant has the right to recover damages from the property owner".

Where there is no police power to enforce reinspection property owners have neglected to repair defective wiring even when it was brought to their attention, on the grounds that they were covered by insurance. This decision of the Ohio Supreme Court offers an excellent precedent. A few more similar decisions in other states would be very helpful in forcing landlords to maintain their wiring in a safe condition.

Code Chats

A Monthly Discussion of Wiring Practice and Questions of Interpretation, Presented with a View Toward Encouraging a Better Understanding of the National Electrical Code - - - - -

Conducted by F. N. M. SQUIRES

Assistant Chief Inspector, N. Y. Board of Fire Underwriters

Wires for Signal Circuits

"The present day tendency is to eliminate batteries not only on radio sets, but also for bell ringing and gong devices, telephone systems, electric clocks, etc. These eliminating devices (which are usually transformers or potentiometers) have not only considerable capacity in amperes but also relatively high voltages (through various taps). Assuming that the device is properly wired and fused, but the bell, gong, telephone or clock system is installed in annunciator wiring (stapled to the wall), what would be the highest voltage (under the Code) allowed to be used from the device to the bell wiring?"

Only approved bell ringing transformers should be allowed. The Laboratories limit the capacities of these transformers to 50 watts. If devices capable of delivering more power than this are used the wires should be installed under a suitable method of Article V (Wiring Methods) and approved materials only should be used.

* * *

Services in Walls of Frame Buildings

There still seems to be an attempt by some to run service standpipes within the walls of frame buildings. This is because of a desire to eliminate an unsightly conduit on the outside of a house where the service is fed from an overhead supply line and where the service equipment and meters are to be placed in the cellar.

But there is not much doubt as to the requirements of the Code in the second sentence of paragraph 404-a, wherein it specifies that the "Service" conductors may be run through but

shall not be run within a building wall unless the conduit is embedded in brick, tile, concrete, or other fire-resistant construction"

And that last word is "construction" and not "covering."

The Electrical Committee, through its Interpretations Committee, rules that asbestos pipe covering or insulation is not sufficient to satisfy the requirement of the quoted rule. The "2 in. of concrete," as mentioned in 401-b, is what is really meant.

Grounding

907-e, second sentence, requires that "grounding wires smaller than No. 4 within 7 ft. from the floor shall be protected from ordinary mechanical injury by being enclosed in metal, wood, or equivalent protective covering."

907-d, second sentence, requires that a grounding conductor for an interior wiring system when "installed in steel conduit or in armored cable shall be bonded to the



GUIDE ALBANY CONTRACTORS:—The executive committee of the Albany chapter of the Hudson-Mohawk Electrical League, which has formulated a plan for building the wiring market in Albany, as reported in last month's Electrical Contracting, are, left to right (seated): A. A. Schroeder, Schroeder Electric Co., president; Charles Russell, Esco Electrical Supply Co.; E. J. Murphy of the Alpha Electric Co. Standing: C. J. Bernhardt, treasurer; Edward Murphy, executive secretary; A. D. Shaw and J. J. Horan, vice president.



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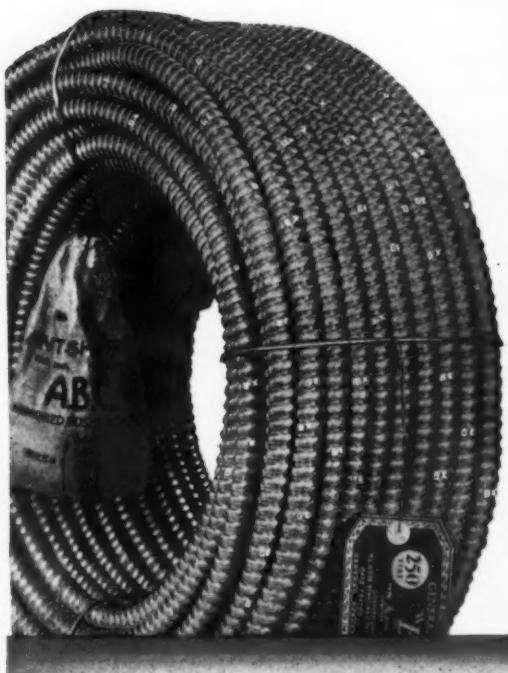
RENEWABLE FUSES—PLUG FUSES—NON-RENEWABLE FUSES—FUSE PULLERS

SPEED UP WIRING

- 1—Steel strip is here removed showing conductors protected by Kraft armor.
- 2—Kraft armor unwinds and snaps off underneath steel armor.
- 3—Anti-Short then slips on from the side. It's a split-sleeve of fiber.
- 4—Neat, protected end.



"I've used G-E 'BX' for 25 YEARS



and during all that time it has given me unfailing service," says the contractor.

"And our firm has sold it for twenty-eight years," replied the jobber's salesman. "During all these years it has been the standard by which other armored cables have been judged.

"Furthermore, more contractors are relying on G-E 'BX' every day especially since the new anti-short bushing has been added. This fiber sleeve gives the conductors protection from cut end of steel armor.

"It certainly is tough. The steel strip wound on it stands 'most anything . . . and grounds perfectly.

"Look at that Kraft armor inside. It's tough, too . . . gives conductors double protection.

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conduit or armor at both ends." (When so installed a bare wire may be used.)

904-d says that interior conduit, etc. may use the interior wiring system grounding conductor for grounding providing the connection is made on the supply side of the service switch and also providing the supply system is grounded at other buildings to an underground piping system.

From the above paragraphs then we see that there is no objection to interconnecting the grounded conductor (neutral) of the interior wiring system with the conduit or equipment providing the proper other requirements are satisfied.

Therefore, the conduit enclosing the system grounding wire may be connected directly into the service switch box in the same way as any other conduit would be, except that where this conduit is used to also serve as the grounding conductor for the service conduit and where other conditions specified in 904-c are present, bonding jumpers or ground clamps or lugs or devices approved for the purpose are also to be used.

* * *

Wire for Use in Conduit in Damp Places

Inquiry has been made as to the Code requirements for the type of wire to be used in conduit which is buried in concrete and also the class of wiring to use in ice boxes.

Paragraph 503-L gives us our rules for conduit wire and this specifies rubber covered "or, if in a permanently dry location, may be varnished cambric type." This, then, implies that in other than a permanently dry location that the use of rubber insulation must be adhered to. Also, the last sentence of 503-L requires the use of a lead covering in flexible metallic conduit in wet or damp places, thus implying by its lack of mention that lead covering is not required in conduit even in wet or damp locations.

As to ice box wiring, the question evidently refers to ice boxes or refrigerators of the larger types, such as are used by butchers, etc. The Code does not relegate this wiring to any one type but allows

a selection from several types of wiring methods, as listed in Article V.

If open work is the one selected, particular attention must be paid to protection against mechanical injury and other provisions of 501. Rigid conduit wiring is the one to be recommended, of course, for ice boxes and rubber covered wire may be used.

If flexible metallic conduit or armored cable is the type of wiring selected, then the wire is to be of the lead covered type.

* * *

Service Switch Connections

Confusion has arisen as to the proper arrangement of the service switch, service fuse, and meter. Some claim that the opening of the service switch should cut off the fuses so that the fuse block will be "dead" for fuse renewal. Others claim that as it is sometimes necessary to work on the connection to the service switch the fuses should be connected ahead of it so as to afford protection in case of a "slip."

The Code, however, is clear on the matter and indicates how it shall be done and allows but one deviation. Paragraph 405-c says that "A service switch shall . . . disconnect the meter and *overload protective devices*

(fuses)." 405-f calls for this device to be "arranged to cut off the current from . . . all devices in such circuits *other than the service switch . . .*" The second sentence of paragraph 405-f strengthens the above requirement by specifying that "Fuses, where used, shall be controlled by the service switch . . ."

Now let's see what the one deviation of the above requirement is. Sub-paragraph (1) of paragraph 405-c allows that "Where the switch, fuses, and meter are combined in an approved device or *compact combination* of such devices having no live parts or wiring exposed, and capable of being locked or sealed, the switch may be so connected that it will not disconnect the fuses or the meter from the supply line."

Note, it says "*compact combination!*" This means that where the meter loop is run open, or in loom, or in any manner by which the meter does not set on a meter pan, nor directly onto the switch box, no exception may be made to the general rule.

Let us then follow this order—Service switch, fuses, meter, and at the same time maintain a "*compact combination,*" and then let's not forget the customer's accessible fuse required by 405-g to be placed on the load side of the meter.



PHILADELPHIA LEAGUE TAKES OWN MEDICINE:—The Electric Association of Philadelphia, which has just moved into its new quarters in the Benjamin Franklin Hotel, paid particular attention to the lighting equipment. In the offices semi-indirect type units are used, giving an intensity of 20 ft. candles on the desks.

THIS MONTH IN THE SQUARE D SPOTLIGHT



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A. E. I.

*News and Service
Information*

*Material for this department is supplied by the headquarters staff of the Association of Electragists, International,
420 Lexington Avenue, New York, N. Y.*

Executive Committee Meeting

THE semi-annual meeting of the Executive Committee of the Association of Electragists, International, was held in New York on March 10 and 11, at Association headquarters, with the following representatives present: President L. E. Mayer, Chicago; Vice-President E. N. Peak, Marshalltown, Ia.; Allan Coggeshall, New York City; L. K. Comstock, New York City; J. A. Fowler, Memphis; W. W. Ingalls, Miami; F. T. Langford, Minneapolis; G. W. Forsberg, Salt Lake City; Clyde L. Chamblin, San Francisco; J. H. Schumacher, Winnipeg, and R. A. L. Gray, Toronto.

G. W. Forsberg of Salt Lake City was appointed, by President Mayer, executive committeeman from the Mountain Division to fill the vacancy for the remainder of the term, caused by the withdrawal of George Randall through illness.

Allan Coggeshall was appointed chairman of a new Standing Committee on Engineering and Technical Research.

The Executive Committee during its two days' session took action upon many important matters concerning the activities and policies of the A. E. I., among which the following actions were outstanding:

White Pipe

A resolution was passed recommending that as rapidly as possible the industry should standardize upon metallic-coated conduit and fittings (commonly known as white pipe and fittings), and that this matter be brought to the attention of all manufacturers of these materials.

Estimating Manual

It was voted that the A. E. I. should initiate procedure for the introduction of the Electragists' Estimating Manual as a text book in accredited colleges and schools of electrical engineering, to develop better trained men in the estimating field.

A. E. I. chapters are requested to report how many of their members are now using the Estimating Manual and what methods are being used by the chapters to extend the adoption and obtain general understanding of this system of estimating.

It is planned also to undertake a survey as to what extent the chapters can assist in obtaining important new labor data.

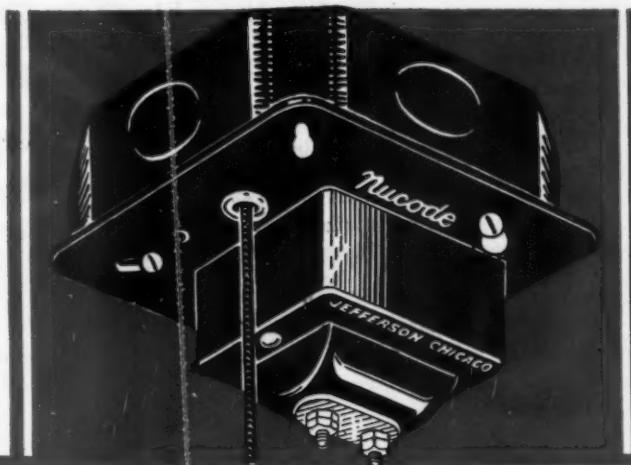
Planning Committee

In order to make a thorough study of present and future development of the association there was created a special Committee on Organization and Budget Planning. The members of this Committee, appointed by President Mayer, are Earl N. Peak, chairman, J. A. Fowler, and Clyde L. Chamblin.

Chapters and members are invited to send to this committee recommendations and suggestions for increasing the service of the association and



FORT WORTH ELECTRAGISTS' CHAPTER:—In Texas at present there is a sincere desire on the part of the contracting fraternity to become fully organized and present a solid front to all difficulties. And whenever another forward step is taken the Fort Worth Electragists will be in the thick of it. They meet every Wednesday. This photograph was taken before one of the sessions. Left to right, the Chapter members are: D. E. McDonald, McDonald Electric Co.; Herman Brown, Republic Electric Co., secretary-treasurer; R. R. Wortham, Wortham Electric Co.; J. L. Hensley, Hensley Electric Co., vice-president; O. J. Miller, Miller Bros.; Eugene Ashe, Ashe Electric Co.; J. L. Goolsby, Goolsby Electric Co., president; T. H. Payne, Payne Electric Co., and E. A. Shotts, Shotts Electric Co. This chapter is trying to organize other local chapters throughout the State and has appointed M. O. Burt, formerly of the Fort Worth Power & Light Co. and past president of the Fort Worth Electric Club, as field man to promote this work.



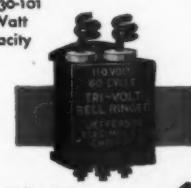
**JEFFERSON
NUCODE
TRANSFORMERS**

SAVE TIME and MATERIAL

A Transformer for Every Purpose



WIZARD
No. 230-101
25-Watt
Capacity



TRI-VOLT
No. 230-121
Three
Secondary
Voltages.
6, 12, 18 Volts



Type G
100 Watts

Heavy Duty
Transformers
50 to 500 Watt
Capacity. Wide
Selection of
Secondary Voltage

Type E
250 Watts



In estimating a job, every little saving counts . . . helps hold down your quotation . . . giving you a better chance to get the work.

When figuring on bell-ringing transformer installations you can allow for a saving in both time and material if you use Jefferson Nucodes. They permit neat and easy installation even by a novice. All that is necessary is the splicing of two wires and the tightening of two screws. The expense of placing the wires in the conduit and the additional labor are eliminated.

Furnished with round or square cover. The round cover type fits both 3 1/4" and 4" octagon outlet boxes. The square cover type fits both 3 1/4" and 4" octagon boxes and 4" square boxes. And the same outlet box can be used to attach the Jefferson Nucode Bell-Ringing Transformer and to hang a drop cord.

Nucode is a quality transformer, guaranteed by the largest makers of small transformers, yet sells at a low price, consistent with quality. It is designed for residences and small apartment houses and will operate without core loss, electric bells, buzzers, door openers, etc.

For the larger signalling systems in industrial plants, Jefferson Types "A" to "F" and the new 100 watt Type "G" are recommended. Order from your wholesaler.

JEFFERSON ELECTRIC COMPANY

1503 W. 15th St., Chicago, Ill.

Pioneer Manufacturers of Transformers for Bell-Ringing and Signal Systems, Radio, Toys, Oil Burner Ignition and Control Gaseous Tube Signs; Switch and Outlet Boxes, Plug Fuse and Knife-blade and Ferrule-type Renewable and Non-Renewable Fuses.

JEFFERSON BELL RINGING and SIGNAL TRANSFORMERS

(A-1015)

for financing the cost of such enlarged activities.

Trade Practice Conferences

A special committee was appointed to prepare fair practice rules for the electrical contracting industry and to recommend procedure at the annual convention at Milwaukee in August, looking toward a trade practice conference under the auspices of the Federal Trade Commission. The members of this committee are L. K. Comstock, chairman, W. W. Ingalls and G. W. Forsberg.

Credit Control

The Executive Committee approved the plan recommended by the National Association of Credit Men for Credit Control in the Building Industry, and recommended that A. E. I. chapters take action immediately looking to the operation of effective credit control principles.

Wholesale-Retail Distribution

It was recommended that the chapters undertake a survey, in cooperation with their local electrical wholesalers, of the distribution of electrical materials and supplies to various classes of consumers, and to submit to the A. E. I. before the next convention recommendations as to methods for correction of detrimental

and uneconomic direct selling by wholesalers today to those classes of customers who should be served by contractors and retailers.

Capper-Kelly Bill

The Executive Committee reaffirmed its approval of the principles of legal price control and price maintenance on trade-marked and identified commodities, and endorsed the Capper-Kelly Fair Trade Bill (H. R. 11), as amended January 27, 1930, by the House Committee on Interstate and Foreign Commerce.

Adequate Wiring

The committee voted a resolution of appreciation to the National Electric Light Association for its forward step in producing and distributing to the architectural and engineering profession recommended minimum specifications for adequate wiring.

1931 Convention

J. A. Fowler was appointed chairman and F. T. Langford and Earl N. Peak, members of a special 1931 convention city committee, to make a study of the most suitable place for the holding of the 1931 convention, and to report back their recommendations at the time of the annual convention in Milwaukee in August.

Electragist Chapter for Chattanooga

Following action taken late in February by the Chattanooga Electrical Contractors' and Dealers' Association, the A. E. I. has issued a charter to this organization affiliated as the Chattanooga Chapter, A. E. I. For the current year, L. E. Lawson has been elected president, and Paul W. Curtis, secretary.

This is the second chapter to be chartered in Tennessee, and with preliminary organization steps already being taken in Nashville and Knoxville, it is expected the electragists in these cities also will set up chapters within the next sixty days.

* * *

Louisville Organizing Electragist Chapter

Completing preliminary steps to form a Louisville Chapter of Electragists, the Louisville (Ky.) Electrical Contractors' Association has filed application for an A. E. I. charter. S. B. Storm, who has been appointed temporary chairman of the organization, reports the appointment of special committees on public relations, legislation, code and finance.

NEW MEMBERS

The following applicants have been accepted into the A. E. I. since the publication of the list in the March issue:

ALABAMA Birmingham: Bagby Elevator & Electric Co.

CALIFORNIA Hayward: Wired Heat Shop

Los Angeles: Kemp Electric Co.

Oceanside: Berg Electric Co.

Riverside: Coldrens Electric Shop

Electric Supply Co.

Larson Electric Co.

Magnolia Electric Co.

Harry M. Rouse

Whittier: Castor & Turner

Holland Electric Co.

Whittier Electric Co.

CONNECTICUT Greenwich: Charles E. Durkin

Electric Sales & Service, Inc.

Justus B. Ritet

Andred Wagner

ILLINOIS Belleville:

Friedman Electric Co. Rentchler Electric Co.

Collinsville:

Collinsville Elec. Hardware & Sheet Metal Co.

St. Louis:

Gilligan Electric Co. Weckermeyer Electric Co.

Moline:

Robbins Electric Co.

INDIANA Hammond:

Standard Electric Co.

KENTUCKY Louisville:

Thirlwell Electric Co.

MASSACHUSETTS Boston:

James Wilkinson & Co.

MICHIGAN Detroit:

Alexander Electric Co. MacDonald-Smith Elec. Co.

George S. Marten

MINNESOTA St. Paul:

State Hardware & Elec. Co.

OHIO Akron:

Akron Electric Construction Edison Elec. Service, Inc. Jno. P. Novatry Williams Electric Co.

Columbus:

R. G. Barneut M. G. Beck Electric Co.

Brooke Electric Co.

H. C. Baunn

Claggett Electric Co.

F. A. Davis

The Eastern Electric

The Emswiler Electric Co.

Flaunt Electric Co.

Fosteal Electric Co.

Groce Electric Co.

The W. G. Henderson Elec. Co.

Henderson-Benner-Ashle-

man Elec. Corp.

The Lytte Elec. Co.

Walter Leffler

Nolan Electric Co.

H. L. Pence

Service Elec. Co.

Sims Electric Co.

Superior Electric Co.

August Steiff Elec'l Contrs.

L. R. Kennedy

Thompson Electric Co.

L. C. Wilcox

J. L. Hughes Elec. Co.

Cuyahoga Falls: Electric Supply & Construc-

tion Co.

Worthington: Wing Electric Co.

TENNESSEE

Chattanooga: Brainard Electric Co.

Chattanooga Electric Co.

Central Electric Co.

Lawson & McCaslin

Ragon Electric Co.

Rogers Electric Co.

WISCONSIN

Kenosha: Brenner Electric Shop, Inc.

O. E. Graf

R. A. Haubrich Electric

Construction

Henry Herrema Electrical

Shop

CANADA

Saskatchewan: Regina Electric, Ltd.

The New WONDER-LITE of Today
FOR SHOW WINDOW LIGHTING

a MARVEL-LITE PRODUCT



FLEXIBLE TYPE

WRITE
FOR OUR NEW
CATALOGUE
AND
DISCOUNT SHEET

Our discount is much
more liberal. More profit
for you, more satisfac-
tion for your customer.
Does that sound good?

Contractors and Jobbers

These New Reflectors will be ready for
distribution within the next ten days.

ORDER YOUR SAMPLE REFLECTOR AT ONCE

Our Twenty Year Unconditional Guarantee Applies to These New Reflectors

The ball and socket flexible feature of this line permits the light rays of each reflec-
tor to be trained where they are desired in the show window. This feature will
be much appreciated by window trimmers as it gives them complete control of the
distribution of light in the show windows.

These new reflectors
will revolutionize the
art of show window
lighting.

| SCHEDULE | | |
|-----------|------|---------------------|
| Reflector | Lamp | Material |
| 1200C | 200W | Chrome Pl. on Brass |
| 1200R | 200W | Polished Rayalium |
| 1200E | 200W | Etched Rayalium |
| 1150C | 150W | Chrome Pl. on Brass |
| 1150R | 150W | Polished Rayalium |
| 1150E | 150W | Etched Rayalium |

The above photo dem-
onstrates the moveable
features of the 1150
and 1200 line.

The Marbelite Art Products Co.
2652 West Lake Street . . . Chicago, Illinois

NO CONFUSION!

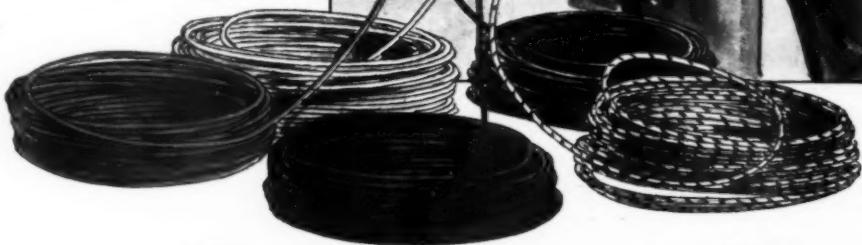
You can identify
circuits with
G-E COLORED WIRES

General Electric offers you a complete line of rubber-covered wires—*eight colors* if you need them. You can identify circuits readily.

All G-E wires are of the same high quality . . . possess the same slicked finish for easy pulling.

You can have colored wires at no increased cost. Black, White, Red, Green, Blue, Brown, Yellow and White (with tracer) wires are available in No. 14 solid single braid, in Code, Intermediate and 30 per cent grades and other sizes can be supplied on order.

Ask the G-E Merchandise Distributor in your city, or write us for a tube of eight samples. Section W-294, Merchandise Department, General Electric Company, Bridgeport, Conn.



GENERAL ELECTRIC



RUBBER-COVERED WIRE

MERCHANDISE DEPARTMENT

GENERAL ELECTRIC COMPANY

BRIDGEPORT, CONNECTICUT

In the Editor's Mail



Timely Editorial

Editor,
ELECTRICAL CONTRACTING:

The editorial in the March number of ELECTRICAL CONTRACTING, headed "Strike at the Root," was especially timely here, as such an ordinance as this article condemns, was recently passed.

The text of this ordinance was not published, except for a news item stating that an ordinance had been passed and it provided for a contractor's bond. When (if ever) this ordinance is published, will be glad to mail a copy of same to you for comment or criticism.

R. E. JOHNSON,
R. E. Johnson Electric Co.
Silver City, New Mexico.

* * *

Licensing Conditions

Editor,
ELECTRICAL CONTRACTING:

The writer would like to get the opinion of others regarding licensing of electrical contractors and journeymen, and under the following conditions:

Contractor's license, for large and small firms, to be the same price. Journeyman's license all the same price, and about 1/20th the price of the contractor's license. If the contractor wishes to work with tools, he or they if more than one in the firm, have to procure a journeyman's license, making two licenses. If there are three in a firm, and they all work with tools, it will cost each one only a little more than one-third what it will cost a one-man firm.

Can several doctors combine together and practice with only one license? Can a license for a large automobile be procured for the same price as a small one? etc.

A license issued without an examination to a contractor or a journeyman who have been in the business or worked at the business for three years.

A SUBSCRIBER.

* * *

Wants Plaster Covers for Boxes

Editor,
ELECTRICAL CONTRACTING:

The article mentioned by Donald Ferguson in your February issue, for keeping plaster out of boxes, if practical, would surely warrant being marketed, as I also find the difficulty really serious.

Should this article eventually be marketed I would esteem it a great favor to ascertain where I could procure it.

GEORGE ERSKINE,
Erskine Electric Works.
Menlo Park, Cal.

* * *

To Keep Plaster Out of Boxes

Editor,
ELECTRICAL CONTRACTING:

I do not think that the outlet box cover, advocated by one of your readers in your February issue, to be installed before plastering is done in a new house will work out.

It certainly will not work out on a conduit job, as the plasterer would plaster right over the cover, and you would have considerable trouble in locating your boxes, particularly on a large installation.

I would think that another switch box screwed on over the box installed, forming a projection would be the remedy, and there would be no additional cost. Recently on a large conduit we had some twenty-six plug and switch boxes to take out of plaster and in many cases they were difficult to locate, needless to say the plasterer had extra work to do after we had located our outlets. Since they now fill the boxes with plaster, they would plaster over the covers.

ART ELECTRIC
P. A. CHEEVER,
Toronto, Canada.

* * *

Some Range Wiring Costs

EDITOR,
ELECTRICAL CONTRACTING:

We have been installing ranges for the local power company for a flat charge of \$60.

Material cost averages \$31.00 and one man should make the installation in 8 hours. We find ours average 12½ hours, due to never having everything ready, as the linemen have to change from two to three wires in most instances; the stove isn't always on the job when you are ready for it; you can't take out the old range until you are ready to install the new one which is no good without service. So we are compelled to go to the job several times, which in our case, so far, has been mostly in the outlying districts not furnished by gas.

THE MACS,
Bristol, Conn. J. P. McMahon.

* * *

Range Wiring Extras

Editor,
ELECTRICAL CONTRACTING:

I read ELECTRICAL CONTRACTING and obtain some valuable information from it, especially the resale price section, as I use this to price all my billing.

I came across the range wiring layout on page 13 of the February issue, but do not think it fair to the trade to send it in, as it does not cover what would be considered a fair job in this locality.

I will mention a few items which should be included, also recommenda-

(Continued on Page 140)

Contracting News

Information of Interest to Electrical Contractors consisting of items of news, short articles, practical ideas, etc. Our readers are invited to contribute to this department.

Bare Neutral in Detroit

Under certain conditions bare neutral wiring will be permitted in Detroit. The rulings adopted by the Department of Buildings and Safety Engineering, Bureau of Electrical Inspection governing this method were adopted January 15, 1930, as follows:

A. C. single phase systems where neutral is grounded on customers' premises, service may have bare neutral. A. C. single phase systems where neutral is grounded on customers' premises may be installed with bare neutral in rigid conduit by special permission in writing and under strict supervision.

When these rules became effective a number of Detroit contractors and inspectors went to Evansville, Ind., where the method has been used for some time to study installations. The trip was sponsored by the Detroit Edison Company. H. E. Cook, lighting engineer for the latter company, and head of the party, is reported in the Evansville papers as saying:

"There is a possibility of incorporating it (bare neutral) in the present type of metallic and nonmetallic sheathed cable, although it is a future development, yet in the experimental stage."

* * *

Dayton Contractors Secure Reinspection

The Master Electricians Association of Dayton reports that it has been successful in securing reinspection through the continuous survey of existing installations by the municipal inspection department. To date one man has been assigned to this work. The association also reports that it secured a reduction in the cost of a minimum inspection of three outlets or less from \$1.75 to 65 cents.

The association is at present running a school on cost data and simplified accounting.

The officers elected to serve for

1930 are J. C. McFadden, president; William Lyman, vice president; Roland West, secretary, and Louis Korte, treasurer. A board of seven directors was also elected.

* * *

Toledo Contractors Working for Reinspection

A special committee has been appointed by the Toledo Electrical Contractors' Association to work in conjunction with the local utility department of electrical inspection, the Electrical League, Toledo Safety Council, Fire Prevention Bureau and local office of the Ohio Inspection Bureau for the purpose of establishing a fund to have a separate inspector appointed for reinspection. Although the city of Toledo has a local ordinance providing for reinspection, the laws were not properly enforced because of lack of funds.

The committee is also trying to se-

cure a licensing ordinance for contractors with bonding provision.

During March and April the association is carrying on an additional outlet campaign. At the end of the first week of the campaign the association had gone over the \$1,000 mark and 200 additional outlets were installed. Prices on convenience outlets during this campaign are \$7.50 for one outlet; \$12.50 for two; \$17.00 for three and \$4.00 for each additional outlet. Every effort is being expended to have approximately 5,000 additional outlets installed when the campaign closes April 30.

* * *

Southern California Electragists Reorganize

On a basis fully self-supporting with dues well advanced and guaranteed the California Electragists, Southern Chapter, has entered the



Southern California Electragists' Staff.

Left to right: Fred White, secretary, Long Beach branch; Miss Bonnie Howell; T. V. ("Brick") Hunter, accountant; Helen Mikesell Kistler, secretary, Los Angeles Class A branch; A. H. Gudie, secretary, Los Angeles Intermediate branch, and Frank J. Connolly, executive secretary, Southern Chapter.

Here's a Clever Contractor -



He has found a way to get from 50% to 200% More Profit out of the Average Residence Installation

Submits an Alternate Bid to Include Ventilation

HERE is no profit for you, Mr. Contractor, in seeing how low you can bid on the average wiring job. But there is always a way to take this job out of the average class, and make it a special job, one that will bring you a real profit.

This man we mention has done it, by submitting an alternate bid for residence and apartment installations, calling for home ventilating units. The owner or builder sees that this equipment should go into every modern home, and in the great majority of cases the contractor gets the job on the larger basis, with the bigger profit that goes with it.

How does he do it? Simply because he knows more about the electrical business than his customer.

If your customer hasn't put ventilation equipment in his plans, it is probably because he doesn't realize how reasonable Buffalo Breezo units are in first cost, in operation, and how much they add to the livability of the modern home and apartment. But, you are a part of the electrical industry, and should be acquainted with these things; you should be able to make recommendations to your customers, and sell them a modern installation.

Better get this into the original installation, yourself, than to have the customer come around after the house is occupied, complaining because his installation is not up to date, and worst of all, have him buying inadequate equipment and installing it himself.

BUFFALO FORGE COMPANY
504 Broadway, Buffalo, N. Y.
In Canada: Canadian Blower & Forge Co., Ltd.
Kitchener, Ont.

BUFFALO

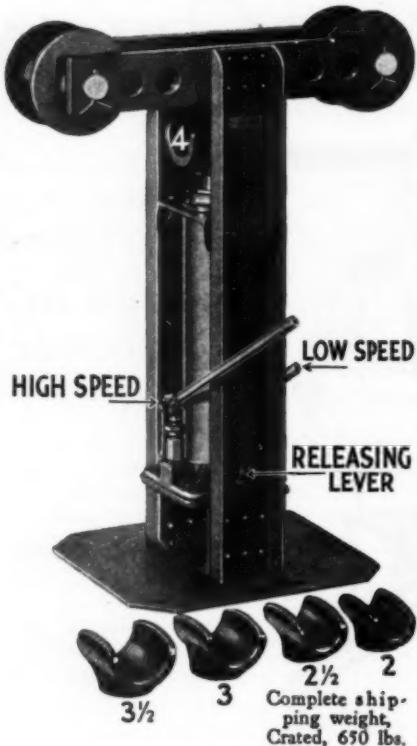


BREEZO

Bends and Straightens in a Jiffy!

The most practical and economical pipe bending machine on the market today.

The No. 4 Chicago Bender which was used in building the Merchandise Mart Building, the Board of Trade Building, the Chrysler Building (New York) and many other large buildings in different cities provides maximum safety for men and work. Equipped with five bending shoes—2", 2½", 3", 3½" and 4". Weighs only 310 lbs., less equipment, and is easily transported from one job to another.



CONTRACTOR'S BUILDING ONE OF THE FINEST:—When Martin Wright, head of the Martin Wright Electric Co., San Antonio, Tex., decided to build his business home opposite the Municipal Auditorium, he also decided that the appearance should be strictly in keeping with the majesty of the city's beautiful structure. So he combined his ideas with others gathered in an extensive tour and the result is shown in the accompanying photograph.

new year with a complete reorganization of set-up and fourteen local branches, each functioning and active. With the new set-up the organization is concentrating wholly on contractor problems treated entirely from the contractors' viewpoint. This differentiates between the former set-up in which affiliation with the California Electrical Bureau sought to direct the organization along lines of industry development as a whole.

Since January 1 when the new arrangement went into effect each of these fourteen branches has been set in motion and officers elected in each local group. These officers represent the local group on the chapter executive board. Following is a list of the branches and their presidents:

| Branches | President |
|---------------|-----------------|
| Bakersfield | Jim Baker |
| Glendale | Ran Doll |
| Harbor | Chas. Walsworth |
| Long Beach | L. O. Wetzel |
| Los Angeles | J. G. English |
| Class A | H. H. Hamm |
| Intermediate | L. T. Woods |
| Motor | F. Stueckle |
| No. Orange | C. M. Gilbert |
| So. Orange | C. A. Rowley |
| Pasadena | E. P. Snyder |
| Redlands | Austin Shaw |
| San Diego | E. W. Huston |
| Santa Barbara | A. H. Ogilvie |
| Santa Monica | Frank Holland |
| Whittier | D. Coldren |
| Riverside | |

The headquarters for the Southern Chapter has been maintained at 609 Cotton Exchange Building, Los Angeles, where formerly the joint offices with the California Electrical Bureau were maintained. The Bureau has discontinued its office in Los Angeles. At headquarters Frank Connolly, executive secretary, southern chapter, is assisted by Fred White, A. H.

Conduit-Pipe-Tubes and Bars

are easily bent to any radius or offset by simply adjusting rollers. One man exerts hydraulic power up to 30 tons with ease. To lower, simply turn release valve and the load settles down at a smooth controlled speed to any point. Unnecessary to remove pipe or shoe when changing to a new bend. Order today from your jobber, or write us direct giving us his name.

Manufactured by
GUSTAVE LIDSEEN, Inc.
832-840 So. Central Ave. Chicago, Ill.

LIDSEEN

NEW IMPROVED 30-TON HYDRAULIC

PIPE BENDER



COMPETITIVE PORCELAIN RECEPTACLES



No. 7718



**For Fixture Assemblies
and general uses for a
LOW-priced Receptacle**

No. 7720



LOW-priced Receptacles for highly practical work — where you've got to keep down wiring-costs and still keep Reliability . . . H & H Receptacle with screw terminals for through wiring: No. 7718. With concealed terminals for through wiring: No. 7720. With 9" wire leads of No. 14 stranded rubber-covered wire: No. 7721. With 9" wire leads of No. 18 stranded rubber-covered wire: No. 7722 . . . Samples? — certainly! Just give Catalogue numbers of the Receptacles wanted.

No. 7721



No. 7722

HART & HEGEMAN DIVISION
THE ARROW-HART & HEGEMAN ELECTRIC CO.
HARTFORD, CONN. MAKERS OF ELECTRIC SWITCHES SINCE 1890



In Boston These Jobbers will supply you with STEEL CITY products

George H. Buckminster Co.
F. S. Hardy & Company
Milhender Electric Supply Co.
Voye Electric Supply Company
Vye-Neill Company
George H. Wahn Company
Wetmore Savage Electric Supply Co.

Campbell Boxes and Receptacles

Furnished with any type of receptacle and plug in 10 to 60 amperes, either two, three, or four wire, with and without grounding feature. Rigidly constructed for use in all types of industrial plants, steel mills, railroad shops, round houses, power stations, etc.



STEEL CITY ELECTRIC CO.
1207 Columbus Ave. Pittsburgh, Pa.



BOX No. 1240
10 to 20 amperes

Plugs with cord grips accommodating cords up to $1\frac{1}{4}$ " dia. are furnished with these new type boxes. . . More profits when you use Steel City material on all wiring jobs.

Gudie and Helen Mikesell Kistler.

The program undertaken by the association consists of a study of the local situation and individual treatment of that situation. Where these local problems touch state or national activities it is planned that the contractors' interests be undertaken aggressively by the association.

* * *

Youngstown Gets Rein-spection

An electrical inspector shall make periodically a thorough reinspection of all electric wiring according to one of the provisions in the new Youngstown, Ohio, ordinance, which becomes effective on April 3. The ordinance also gives the inspector power to enforce his rulings on defective wiring.

The ordinance, which is most carefully drawn and very thorough, provides for licensing of electrical contractors at \$10.00 a year fee and a \$2,000 bond and is based upon the latest edition of the National Electrical Code.

One of the interesting requirements of the ordinance is that contractors, in applying for permits, must state in the application "the sizes of conductors to be used in or upon any building for all services, mains, feeders and sub-feeders, the



WIRED COUNTY COURT HOUSE:

—George W. Webb, proprietor of the Webb Electric Co., Asheville, N. C., standing beside a portion of the switchboard of the Buncombe County Court House, which he wired, the original electric contract amounting to \$65,400.00. The Webb Electric installed all of the wiring for lighting and furnished the fixtures as well as the watchman's call system, the bell system, the clock system, and the flood lighting system of 108 units, averaging 750 watts each.



BENJAMIN

TRADE MARK

Elliptical Angle Reflectors for *Lighting from the Side...*

Remarkable for its unusual adaptability to a wide range of lighting requirements.

It gives a good distribution of light on a vertical surface, such as a building exterior or wall sign; over a horizontal surface, such as a swimming pool or the yard and drives of a gasoline service station, and over both horizontal and vertical surfaces at the same time in industrial and other locations.

It is the most practical application of lighting from the side, without direct glare from the source of light.

There are so many places where the use of a reflector directly overhead is impracticable or undesirable, that the many advantages of the Benjamin Elliptical Angle Reflector should be fully investigated.

Send for folder illustrating and describing the many uses of the Elliptical Angle Reflector.



For Lighting Vertical Surfaces



For Outdoor Areas



For Industrial Plants



For Gasoline Service Stations



BENJAMIN ELECTRIC MFG. CO.,

General Offices and Factory:

DES PLAINES (Chicago Suburb) ILL.

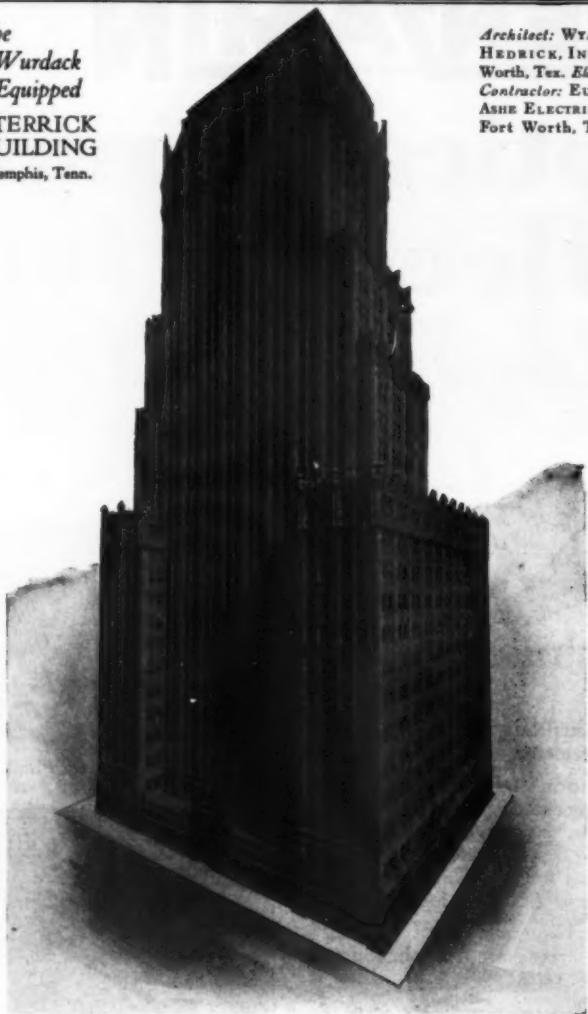
247 W. 17th Street, New York

Divisional Offices and Warehouses:

111 N. Canal Street, Chicago

448 Bryant Street, San Francisco

*The
Wurdack
Equipped*
**STERICK
BUILDING**
Memphis, Tenn.



*Architect: WYATT C.
HEDRICK, INC., Ft.
Worth, Tex. Electrical
Contractor: EUGENE
ASHE ELECTRIC CO.,
Ft. Worth, Texas.*

**This New High Point on the Memphis Skyline
is a New High Point in
WURDACK ACHIEVEMENT**

Constantly seeking to improve our product; constantly trying to build more efficient, more dependable, better engineered switchboards and panelboards, Wurdack developments keep pace with the growing demands of modern construction. We count it an honor that the architect and builder of the monumental Sterick Building in Memphis selected Wurdack equipment for this outstanding structure.

WM WURDACK
ELECTRIC MFG. CO.
4444 CLAYTON AVE., ST. LOUIS, MO.

See Sweet's catalogue for nearest branch office.



SPECIALIZES ON FARM WIRING:
—L. McAllister of the Jager Electrical Company, Joliet, Ill., makes a specialty of farm wiring and has been very successful in selling electricity to neighboring farmers. The accompanying photograph shows members of the Jager Company as follows: A. J. Lawless, L. McAllister, G. Weiskop, Frank Ryba, Tom Roach and R. A. Brown. Mr. Jager was out of the office at the time this picture was taken.

areas to be served by such conductors and the basis used in computing the required sizes of such conductors, and shall when required by the electrical inspector, file with him complete plans and specifications for the installation, showing sizes of all conductors and such other details as may be necessary to determine whether the installation as described will be in conformity with the requirements of this ordinance."

The ordinance then goes on to state that the permit shall be for such installation as described in the application and no deviation will be permitted from the installation as described without written approval of inspector.

* * *

Dallas Chapter Formed

The electragists of Dallas, Tex., have recently received a charter from the A. E. I. completing organization of the Dallas Chapter. C. J. Roesch has been elected secretary-treasurer.

The chartering of this chapter marks the inauguration of a movement initiated by the Fort Worth Chapter for the formation of Electragist chapters in cities throughout Texas, looking to the organization of a state association. To assist chapters being formed and cooperate with local leaders in the state organization work, the Fort Worth Chapter has employed M. O. Burt as field representative. Mr. Burt's first field trip in March included visits to Houston, Waco, San Antonio and other points in southern Texas.

HOW THE CONTRACTOR PROFITS

—by trapping wasted footsteps

WASTED FOOTSTEPS are not wasted as far as the contractor is concerned . . . On the contrary, they bring him *profits*—by bringing him the opportunity to install Graybar Inter-Phones! . . . Schools, office buildings, factories, apartments—in fact, *all* buildings where people constantly go from room to room—are real live prospects for these step-saving devices for internal communication . . . Inter-Phone profit is a 3-fold profit, too: on installation; on equipment; on other jobs to be had in buildings where you have installed Inter-Phones . . . Here is a product that is right. Here is a market that is enormous. Take advantage of Graybar's advertising direct to the fields of sale. Get *Graybar's proposition!*



Tune in on the *Graybar Hour*, 10 to 10:30 Eastern Standard Time every Tuesday night . . . Columbia Broadcasting System.

Graybar Inter-Phones are remarkably easy to install and to maintain. They are so simple in construction that servicing is really no factor at all. And they are backed by 61 years of electrical experience!

* * *

We have prepared a booklet entitled "Selling More Inter-Phones" . . . and we honestly think it will be worthy your while to send for it.

* * *

There is a coupon below for your convenience.



THE GRAYBAR TAG
SYMBOL OF
DISTRIBUTION

GraybaR Inter-Phones

GRAYBAR ELECTRIC COMPANY

Graybar Building

Lexington Avenue and 43rd Street, New York

CHECK Send me that booklet about Inter-
Phones, please.

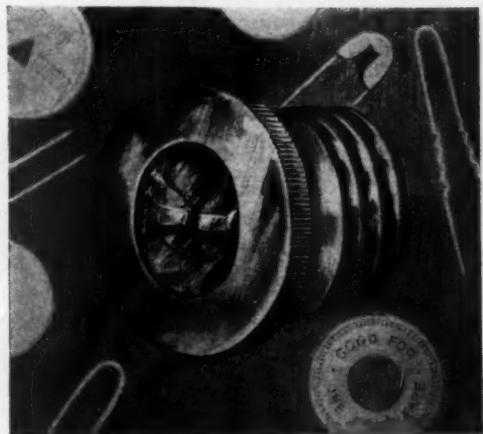
Send one of your men to confer with
me on Inter-Phones.

Name

Address



...what's



BEHIND

the missing

link?



Ends tampering
with fuses.



Eliminates ser-
vice calls.



No fuse replace-
ment hazards.

A PENNY? Wire? A Hairpin?—no matter what—it is destroying the protection the fuse affords.

The Westinghouse Nofuz panelboard overcomes this dangerous practice. A circuit-breaker replaces the switch and fuse in the branch circuits. This breaker cannot be held closed against an abnormal overload or short-circuit. Its calibration cannot be altered. Its action cannot be blocked. And anyone can reclose the breaker with perfect safety.

Have the Westinghouse panelboard specialist call on you today with a sample breaker and complete information.

Service, prompt and efficient, by a coast-to-coast chain of well-equipped shops

Westinghouse



Suggested RESALE PRICES *for* Wiring Supplies

The prices listed on the following pages are merely suggested resale prices for the commonly used standard supplies and equipment employed in electrical construction work. They are based on average current trade costs throughout the country, very largely obtained from jobbers' price sheets, and are also based on average overhead charges.

• • •
Obviously, prices can be suggested only for the widely used products that are nationally distributed, and under no circumstances is this section intended to function as a directory of products or manufacturers.

• • •
The publishers wish to again emphasize that these are merely *suggested* resale prices and while every effort is made to make them universally applicable and accurate we cannot guarantee them or assume any responsibility for errors.

• • •
The prices appearing in this section will be completely revised each month as trade prices may change.

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Suggested Resale Prices for Wiring Supplies

These are merely suggested resale prices for the commonly used products that appear regularly on jobber price lists. They are figured on generally accepted principles for computing resale prices and should cover average conditions but are not guaranteed. (See note on title page.)

A-SUNDRIES

ASBESTOS Asbestos Millboard—Per Pound—30c.

| | | ANNUNCIATORS House Type | | | |
|--|---------|----------------------------|----------------|-------------|-----------|
| | | Edwards Dixie | Edw. & Faraday | "P & W" | "P & W" |
| Number | Ansonia | No. 81 or Faraday | White | "P & W" | "P & W" |
| Drops | | No. 373 | Enamel | Competition | Automatic |
| 2 | | \$ 9.90 | \$ 9.85 | \$13.00 | ..... |
| 3 | | 11.60 | 14.80 | ..... | ..... |
| 4 | | 10.75 | 13.05 | 13.25 | \$16.50 |
| 6 | | 14.85 | 16.40 | 16.50 | 19.80 |
| 8 | | 16.50 | 19.40 | 22.75 | 19.80 |
| 10 | | 19.00 | 22.75 | 26.00 | 24.75 |
| 12 | | 22.25 | 25.90 | 29.15 | 26.40 |
| 14 | | 24.75 | ..... | ..... | ..... |
| 16 | | 27.25 | 34.60 | 40.00 | 34.65 |
| Ex. Drops | | 2.25 | 3.00 | ..... | ..... |
| (All other Annunciators—Sell at List less 10%) | | | | | |

| COUCH Electrical Reset | | | | | |
|---|-----------------------------------|----------------------------|-----------------------------|--------|---------|
| Number | Style D Face Type Wood Face | Style F Flush Wood Face | Style F Flush Metal Face | | |
| Number | Price | Number | Price | Number | Price |
| 4 DA 4 | \$21.50 | FA 4 | \$44.80 | FA 4 | \$49.80 |
| 6 DA 6 | 26.50 | FA 6 | 49.30 | FA 6 | 55.00 |
| 8 DA 8 | 31.50 | FA 8 | 53.80 | FA 8 | 59.70 |
| 10 DA 10 | 36.50 | FA 10 | 58.25 | FA 10 | 64.70 |
| 12 DA 12 | 43.10 | FA 12 | 64.25 | FA 12 | 71.30 |
| 15 DA | ..... | FA 15 | 73.10 | FA 15 | 81.50 |
| 16 DA 16 | 56.50 | ..... | ..... | ..... | ..... |
| 20 DA 20 | 69.75 | FA 20 | 88.15 | FA 20 | 98.00 |
| Add for each drop on any of above—\$4.15 per drop | | | | | |

| ADAPTOR & REDUCERS For Sockets and Vases | | | | | |
|---|-------|--------|-------|--------|--------|
| Arrow | Benj. | Bryant | G. E. | Hubbl. | Price |
| Mogul to Medium | 292 | 98 | 421 | .070 | \$0.50 |
| Medium to Candelabra | 392 | ..... | 392 | 35600 | .25 |
| Candelabra to Miniature | 391 | ..... | 391 | ..... | .20 |
| Medium to Intermediate | 492 | ..... | 9691 | 2644 | .25 |
| Parallel Blades to Medium | 1006 | K.F. | 682 | 5424 | .30 |
| Plug in Pull Socket | 35024 | ..... | 35024 | 35024 | 1.90 |
| Benjamin Vase Adapters No. 831, 832, 833—Each | ..... | ..... | ..... | 2.00 | ..... |
| For Clusters to go with Vase Adapter See PL9 | ..... | ..... | ..... | ..... | ..... |

| SOCKET EXTENSIONS | | | | | |
|---|-------|-------|-------|-------|--------|
| Benjamin No. 91 Socket Extension—Ea. | | | | | |
| For 8" to 14" Reflectors No. 5828—5829—5957—5958 | ..... | ..... | ..... | ..... | \$ .45 |
| For 16" to 20" Reflectors No. 5953—5954—5959—5960 | ..... | ..... | ..... | ..... | .65 |

| ADJUSTERS For Cords | | | | | |
|--|-------|-------|-------|-------|--------|
| Universal Cord Adjuster Standard No. 1417 3½" Long | ..... | ..... | ..... | ..... | \$ .10 |
| " " " Factory No. 1418 5½" Long | ..... | ..... | ..... | ..... | .20 |
| " " " Reinforced No. 1419 5½" Long | ..... | ..... | ..... | ..... | .22 |
| Ball Type No. 1403 & 5 for Type C Cord, ½ hole | ..... | ..... | ..... | ..... | .10 |
| " " " No. 4634 & 5 for Reinforced Cord, ½ hole | ..... | ..... | ..... | ..... | .12 |

| ACORNS & TASSELS | | | | | |
|---|-------|-------|-------|-------|--------|
| Luminous Acorns and Pendants for Pull Chain | ..... | ..... | ..... | ..... | \$0.30 |
| Brass Acorns and Tassels for Pull Chain | ..... | ..... | ..... | ..... | .10 |
| Brass Acorns Adjustable for Linen Cord | ..... | ..... | ..... | ..... | .10 |

BOXES, SWITCH

| STANDARD SWITCH BOXES | | | | | |
|--|-------------------|----------------|--------|--------|--|
| Depth | | | Price | | |
| For Loom | 2, 2½ or 2½" | Without clamps | \$.18 | \$.23 | |
| " " | 2, 2½ " 2½" | With " | .20 | .23 | |
| For Metallic Cable | 2, 2½ " 2½" | With " | .18 | .23 | |
| " " | 3" With " | " | .34 | .38 | |
| For Rigid Conduit | 1½ to 2½" | Without " | .18 | .23 | |
| " " | 3 & 3½" Without " | " | .34 | .38 | |
| Spacers—For Spacers only deduct from any of above prices | ..... | ..... | .04 | .05 | |

With BRACKETS or EXTENDED EARS or LATH SUPPORTS

| | Depth | Black | Galvd. |
|--------------------|--------------|----------------|---------------|
| For Loom | 2, 2½ or 2½" | Without clamps | \$.22 \$.26 |
| " " | 2, 2½ " 2½" | With " | .24 .28 |
| For Metallic Cable | 2, 2½ " 2½" | With " | .30 .35 |
| " Rigid Conduit | 2 to 2½" | Without " | .27 .32 |

SECTIONAL SWITCH BOXES

| | Boxes | Spacers |
|-----------------------------------|---------------|---------------|
| For Loom or Rigid Conduit 1½ Deep | \$.25 \$.28 | \$.23 \$.24 |
| For Rigid Conduit 2½ Deep | .80 .85 | .40 .45 |

SOLID GANG BOXES—GALVANIZED

| | Covers Extra |
|--------|--------------|
| 2 Gang | 3 Gang |
| 3 Gang | 4 Gang |
| 4 Gang | 5 Gang |
| 5 Gang | 6 Gang |
| 6 Gang | 7 Gang |
| 7 Gang | 8 Gang |

Price of Box... \$.80 \$ 1.20 \$ 1.65 \$ 2.10 \$ 4.00 \$ 6.35 \$ 6.50

Price of Cover... .40 .60 .80 1.00 2.00 3.35 3.70

TANDEM SWITCH BOXES

| | Black | Galvanized |
|---------------------------|--------|---|
| Loom, Cable, Conduit | 2 Gang | 3 Gang |
| Tandem Boxes 1½ & 2" Deep | \$.68 | \$ 1.10 \$ 1.63 \$ 1.81 \$ 1.23 \$ 1.90 |
| " 2½ & 3½" | .81 | 1.23 .95 1.37 2.18 |

DOOR SWITCH BOXES

| | Black | Galvd. |
|--|--------|--------|
| For Rigid or Flexible Conduit without Clamps | \$.50 | \$.60 |
| " with Clamps | .60 | .70 |

LAUNDRY BOXES

| | Black | Galvd. |
|--|--------|--------|
| Gem-Appleton or Raco, etc., with Single Receptacle | \$.85 | \$.90 |
| Duplex | 1.25 | 1.35 |

For Concrete Boxes See Page PL-5.

For Solid Gang Boxes See Page PL-5.

BOXES & COVERS, OUTLET

BOXES, ROUND, OCTAGON & SQUARE

| Univ. No. | Size | Depth | Knockouts | Price Each |
|--------------|-------------------|---------|------------------|----------------|
| 24151 | 3½" Oct. Deep | 1½" KO | 1½" 1-1½" 4-1½" | \$ 1.12 \$.14 |
| 24151 | 3½" " " | 2½" KO | 1½" 1-1½" 4-1½" | .14 .16 |
| 24155 | 3½" " " | 3½" KO | 1½" 7-1½" 8-1½" | .14 .17 |
| 26121 | 3½" Round Shallow | 2" KO | 2" 9-1½" | .15 .17 |
| 26125 | 3½" " " | 2" KO | 2" 9-1½" | .13 .15 |
| 26126 | 3½" " " | No Ears | 2" 9-1½" | .13 .15 |
| 36113 | 3½" " " | 2" KO | 2" 9-1½" | .14 .16 |
| 36114 | 3½" " " | 2" KO | 2" 7-1½" | .12 .14 |
| 36116 | 3½" " " | 2" KO | 2" 8-1½" | .12 .14 |
| 51151 | 4" Sq. Deep | 1½" KO | 1½" 5-1½" 8-1½" | .21 .24 |
| 52151 | 4" Oct. | 1½" KO | 1½" 5-1½" 10-1½" | .18 .22 |
| 52151 | 4" Oct. | 2½" KO | 1½" 5-1½" 10-1½" | .21 .24 |
| 54151 | 4" " " | 3½" KO | 1½" 5-1½" 4-1½" | .16 .19 |
| 54155 | 4" " " | 3½" KO | 1½" 5-1½" 5-1½" | .19 .22 |
| 54171 | 4" " " | 2½" KO | 2½" 5-1½" 8-1½" | .23 .26 |
| 56111 | 4" Round Shallow | 1½" KO | 1½" 5-1½" 4-1½" | .12 .14 |
| 56111 | 4" " " | 2½" KO | 1½" 4-1½" 4-1½" | .14 .19 |
| 56112 | 4" " " | 2½" KO | 1½" 9-1½" 9-1½" | .10 .12 |
| 56115 | 4" " " | 2½" KO | 1½" 9-1½" 9-1½" | .13 .16 |
| 56116 | 4" " " | 2½" KO | 1½" 9-1½" 9-1½" | .11 .13 |
| 56121 | 4" " " | 2½" KO | 1½" 9-1½" 9-1½" | .16 .19 |
| 56122 | 4" " " | 2½" KO | 1½" 5-1½" 5-1½" | .13 .15 |
| 56125 | 4" " " | 2½" KO | 1½" 9-1½" 9-1½" | .16 .19 |
| 72151 | 4-11/16" Sq. Deep | 1½" KO | 1½" 5-1½" 8-1½" | .30 .35 |
| 72171 | 4-11/16" Sq. Deep | 2½" KO | 2½" 5-1½" 8-1½" | .33 .38 |

Electrical Contracting, April, 1930

Boxes & Covers

COVERS, ROUND
For 3 1/4" & 4" Octagon & Round Boxes

| Universal No. | Size | Description | Price Each |
|---------------|--------|---|------------|
| | | Black | Galvd. |
| 24C-1 | 3 1/4" | Flat Closed Cover Blank 3 1/4"..... | .06 .08 |
| 24C-2 | " | Raised 3/8" Closed Cover Blank..... | .06 .08 |
| 24C-3 | " | Flat with 1/2" KO..... | .07 .09 |
| 24C-4 | " | Raised with 1/2" KO..... | .09 .10 |
| 24C-7 | " | Raised 1/2" Hole for Cord or Bush..... | .08 .10 |
| 24C-12 | " | Spade "Flat" for Surf. Mtd. Devices..... | .09 .11 |
| 24C-28 | " | Raised 3/8" Open. for Spec. Sign Recpt..... | .08 .10 |
| 24C-31 | " | Raised 3/8" Open. for Spec. Sign Recpt..... | .08 .10 |
| 24C-35 & 36 | " | Flat Open. 3/8" for Spec. Sign Recpt..... | .08 .10 |
| 24C-1 | 4" | Flat Closed Cover..... | .08 .10 |
| 24C-2 | " | Raised 3/8" Closed Center..... | .08 .11 |
| 24C-3 | " | Raised 3/8" Opening 3/8"..... | .11 .13 |
| 24C-6 | " | Flat with 1/2" KO..... | .08 .11 |
| 24C-7 | " | Raised 3/8" with 1/2" KO..... | .09 .12 |
| 24C-12 | " | Raised with Opening for Cord..... | .09 .12 |
| 24C-28 | " | Flat for Surface Mounted Devices..... | .09 .11 |
| 24C-31 | " | Raised for Sign Recptacles..... | .09 .11 |
| 24C-35 & 36 | " | Flat Open. 3/8" for Spec. Sign Recpt..... | .09 .11 |
| 1179 | 3 1/4" | Porc. Round Cov. for 3 1/4" Box with holes \$20 | |
| 1178 | 4" | Porc. Round Cov. for 4" Box with hole \$30 | |

COVERS, SQUARE
For 4" & 4-11/16" Square Boxes

| Universal No. | Size | Description | Price Each |
|---------------|--------------|---|------------|
| | | Black | Galvd. |
| 52C-1 | 4" Sq. | Flat Closed..... | .09 .12 |
| 52C-2 | " | Raised Closed Center..... | .12 .14 |
| 52C-3 | " | " with 2 1/2" Opening..... | .15 .17 |
| 52C-6 | " | Flat with 1/2" KO..... | .12 .14 |
| 52C-7 | " | Raised with 1/2" KO..... | .17 .20 |
| 52C-12 | " | " " Hole for Cord..... | .14 .16 |
| 52C-13 | " | Raised 1/2" For Single Flush Devices..... | .12 .14 |
| 52C-14 | " | " " " " " | .13 .16 |
| 52C-15 | " | " " " " " | .18 .21 |
| 52C-16 | " | " " " " " | .21 .22 |
| 52C-17 & 18 | 4" | Raised 1/2" For Two Flush..... | .17 .20 |
| 52C-19 | " | Raised 1/2" For Two Flush..... | .24 .27 |
| 52C-21 | " | Raised 1/2" For Two Flush..... | .26 .28 |
| 52C-28 | " | Flat For Surface Mounted..... | .18 .20 |
| 52C-35 & 36 | 4" Sq. | Raised for Sign Recptacles..... | .17 .20 |
| 52C-48 | " | Raised with 3/8" Opening..... | .13 .15 |
| 52C-62 | " | Raised 1/2" For Single Flush Devices..... | .12 .14 |
| 72C-1 | 4-11/16" Sq. | Flat Closed..... | .30 .36 |
| 72C-2 | " | Raised Closed Center..... | .36 .40 |
| 72C-3 | " | Raised 2 1/2" Opening..... | .40 .40 |
| 72C-12 | " | Raised with Hole for Cord..... | .40 .40 |
| 72C-14 | " | Raised 1/2" For Single Flush Devices..... | .40 .40 |
| 72C-18 | " | Raised 1/2" For Two Flush..... | .53 .53 |
| 72C-48 | " | Raised 2 1/2" Opening..... | .40 .40 |

4" SQUARE COVERS
For Exposed Work

| Universal No. | Description | Price Each |
|-----------------|--|------------|
| | Black | Galvd. |
| N-8490 to 8493 | 4" Cover For One Push or Toggle Switch or one Single or Duplex Receptacle..... | .25 .30 |
| N-8493A to 8500 | 4" Cover for Two Push or Toggle Switches or Two Receptacles or any combination of two devices..... | .35 .40 |

EXTENSION RINGS
For Flush Devices

| Universal No. | Description | Price Each |
|---------------|--|------------|
| | Black | Galvd. |
| 25151-67151 | 3 1/4" Octagon Ring-1 1/4" Deep..... | .26 .28 |
| 53151-65151 | 4" Square or Octagon Ring-1 1/4" Deep..... | .30 .32 |
| 55171 | 4" Octagon Ring-2 1/4" Deep..... | .46 .53 |

HANDY OR UTILITY BOXES & COVERS
For Use With Rigid Conduit

| Description | Universal Numbers | Appleton Numbers | G. E. Jefferson Numbers | Price |
|--|-------------------|------------------|-------------------------|--------|
| Box 3 1/4" x 1 1/2" x 1 1/2" For Rigid Cond. | 58151 | 4-S8 | 187 | \$0.25 |
| Box 4x2 1/2" x 1 1/2" For Rigid Cond. | 58361 | 4-C8 | 880 | .25 |
| Box 4x2 1/2" x 1 1/2" For Rigid Cond. | | 4-SSL | .... | .25 |
| Box 4x2 1/2" x 2 1/2" For Rigid Cond. | 58371 | 4-SSL | 181 | .25 |
| Box 4x2 1/2" x 2 1/2" For Rigid Cond. | | 4-SSLD | 3400 | .65 |
| Cover Flat Steel Closed..... | 58C1 | 2540 | 58R1 | .18A |
| Cover Porcelain with Holes..... | 58C5 | 2541-6 | 180A | .15 |
| Cover for Sgle. Receptacle..... | 58C5 | 2548 | 58R5 | 180X |
| Cover for Duplex Receptacle..... | 58C7 | 2510 | 58R7 | 180W |
| Cover for Toggle Flush Switch..... | 58C14 | 2594 | 58R14 | 180T |
| Cover for Sgle. Push Switch..... | 58C3 | 2387 | .... | .20 |
| Cover for Sgle. Receptacle..... | 58C33 | 2387 | 180S | .20 |
| Cover for Snap Switches..... | 58C28 | 2556 | .... | .20 |
| Cover with 1/2" K. O..... | 58C8 | 2501 | .... | .18 |
| Cover with 1/2" or 3/4" Nipple..... | 58C8 | 2553 | .... | .30 |
| Cover with Bushing for Cord..... | 58C11 | .... | 180B | .18 |

CONCRETE BOXES WITH COVERS

| Depth | 1 1/4" | 2" | 2 1/4" | 3" | 3 1/4" | 4" | 5" | 6" |
|--|--------|--------|--------|--------|--------|--------|--------|--------|
| Box & Back Plate with 3/8" Studs..... | \$0.30 | \$0.30 | \$0.35 | \$0.40 | \$0.40 | \$0.45 | \$0.50 | \$0.65 |
| Box & Back Plate less 3/8" Studs..... | .25 | .30 | .35 | .40 | .40 | .45 | .50 | .60 |
| Extra Plate 4 1/2" Round without Fixture Stud..... | | | | | | \$0.10 | | |
| Extra Plate 4 1/2" Round with 3/8" Fixture Stud..... | | | | | | .15 | | |
| Extra Plate 4 1/2" Round with 3/8" Fixture Stud..... | | | | | | .20 | | |

SOLID GANG BOXES
Covers Extra

| Galvd. Only | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|--------------|--------|--------|--------|--------|--------|--------|--------|
| Gang | Gang | Gang | Gang | Gang | Gang | Gang | Gang |
| Box Price... | \$.80 | \$1.20 | \$1.65 | \$2.10 | \$4.00 | \$6.35 | \$6.50 |
| Cover | " .40 | .60 | .80 | 1.00 | 2.00 | 3.35 | 3.70 |

Electrical Contracting, April, 1930

BOXES, OUTLET

ARMORED CABLE BOXES
Box Only

| Size | Stud | Clamps | Bush | Plates | Price |
|---|------|--------|------|--------|--------|
| 3 1/4 x 1 1/2" Round | Yes | Two | No | SBH | \$0.25 |
| 3 1/4 x 1 1/2" Round | Yes | Two | No | SBH | .30 |
| 3 1/4 x 1 1/2" Octagon | No | Two | Two | SBH | .25 |
| 3 1/4 x 1 1/2" Octagon | Yes | Two | Two | SBH | .30 |
| 3 1/4 x 1 1/2" Round | Yes | Two | No | SBH | .20 |
| 3 1/4 x 1 1/2" Octagon | No | Two | Two | SBH | .25 |
| 3 1/4 x 1 1/2" Octagon | Yes | Two | Two | SBH | .30 |
| 4 x 1 1/2" Octagon | No | Two | Two | SBH | .30 |
| 4 x 1 1/2" Octagon | Yes | Two | Two | SBH | .35 |
| G.E. Cable Boxes for Straight Electric or Combination No. 5200-01 | | | | | .15 |
| Hope Cable Boxes for Straight Electric or Combination No. 12 & 14 | | | | | .15 |
| Thomas & Betts No. 565-86-67-68 Standard Cable Boxes | | | | | .25 |
| Thomas & Betts No. 553-554 Dead Ground Cable Boxes | | | | | .35 |
| Thomas & Betts No. 160-161 Flush Wall Type Cable Boxes | | | | | .55 |

BAR HANGERS FOR OUTLET BOXES

Box Extra

| (With 1/2" Fixture Stud) (With 1/2" Stud add 5¢ ea.) | Apple- ton | G. E. son # | Jeffer- son | Nat. Prod. # | Met. # | Steel City # | Margin |
|---|---------------|----------------|----------------|-----------------|--------|-----------------|--------|
| Straight Bar 18" Long..... | SBH | 6600 | 10A | .... | 6000A | .... | .35 |
| Straight Bar 24" Long..... | SBH | 6602 | 11 | .... | 6001A | .... | .30 |
| Shallow Offset Bar 19 1/2" Long..... | BHSL | 6603 | 12 | .... | 6002 | .... | .30 |
| Deep Offset Bar 19 1/2" Long..... | BHD | 6604 | 13 | .... | 6002A | .... | .35 |
| Straight Old Work Bar..... | BHOW | 6605 | 14 | .... | 6005 | .... | .20 |
| Box Cleat Bar..... | CBH | 6606 | .... | .... | 2260 | .... | .20 |

BAR SETS
Complete with Boxes

| Size | Ears | Clamps | Bush | Appleton | Jefferson | Steel | City | Galvd. |
|----------------------|------|--------|-----------|------------|-----------|----------|------|--------|
| 3 1/4 x 1 1/2" Round | No | None | None | BH-498L | 260B | 36116B | .... | \$0.35 |
| 3 1/4 x 1 1/2" Round | Yes | Two | None | BH-498LC | 260CB | 36116BC | .... | .40 |
| 3 1/4 x 1 1/2" Round | Yes | Two | None | BH-521L | 261B | 36115B | .... | .40 |
| 3 1/4 x 1 1/2" Round | Yes | Two | None | BH-521LC | 261CB | 36115BC | .... | .45 |
| For Cable or Loom | | | | | | | | |
| 3 1/4 x 1 1/2" Oct. | Yes | Two | None | 1288B | 24151CB | .... | .45 | |
| 3 1/4 x 1 1/2" Oct. | Yes | Two | BHS-513LC | 1288XB | 24151XSB | .... | .45 | |
| 3 1/4 x 1 1/2" Round | No | Two | None | 1286B | .... | .... | .35 | |
| 3 1/4 x 1 1/2" Round | Yes | Two | Two | 1287XB | .... | .... | .40 | |
| 4 x 1 1/2" Oct. | Yes | Two | None | 1291B | .... | .... | .45 | |
| 4 x 1 1/2" Oct. | Yes | Two | Two | Two-BH-551 | 1291XB | 54151XSB | .... | .50 |
| For Conduit | | | | | | | | |
| 4 x 1 1/2" Round | No | None | None | BH-4C | 109B | 36112B | .... | .35 |
| 4 x 1 1/2" Round | Yes | None | None | BH-4CL | 109LB | 36111B | .... | .45 |

BUSHINGS & LOCKNUTS
For Rigid Conduit

| Locknuts—Each..... | \$.01 | \$.01 1/2 | \$.02 1/2 | \$.02 1/4 | \$.05 |
|--------------------|--------|------------|------------|------------|--------|
| Bushing—Each..... | .02 | .02 1/2 | .03 | .03 | .08 |
| Locknuts—Each..... | 1 1/2 | 2" | 2 1/2" | 3" | 4" |
| Bushing—Each..... | 1 1/2 | 2" | 2 1/2" | 3" | 4" |
| Locknuts—Each..... | \$.08 | \$.11 | \$.19 | \$.32 | \$.40 |
| Bushing—Each..... | .10 | .20 | .30 | .40 | .88 |
| | | | | | 1.40 |

"MULTI" PORCELAIN CLAMP BUSHINGS

| No. | K. O. | Inside Size | Outside Size | Wire Size | For Wires | Each | Complete |
|-----|-------|-------------|--------------|-----------|-----------|--------|----------|
| 10 | 1 1/2 | 4 1/2 | 4 1/2 | 14 B & S | .... | \$0.08 | |
| 12 | 1 1/2 | 4 1/2 | 4 1/2 | 14 B & S | .... | .12 | |
| 15 | 1 1/2 | 5 1/2 | 5 1/2 | 14 B & S | .... | .16 | |
| 20 | 1 1/2 | 6 1/2 | 6 1/2 | 6 B & S | .... | .20 | |
| 40 | 1 1/2 | 10 1/2 | 10 1/2 | 1000 | .... | .20 | |
| 50 | 1 1/2 | 12 1/2 | 12 1/2 | 350,000 | .... | .30 | |
| 55 | 1 | | | | | | |



"It won't be long now"

Consider Wire from *this Angle...*

The biggest profit lies in a complete electrical installation—and because one job leads to another, it's good business to please your customers by using only the best material throughout.

In this respect Americore Rubber Covered Wire offers two big advantages. First—its superior quality will assure a trouble free job, one that will help build your reputation. Second—it is made by a company that is known everywhere for the reliability of its



products—a fact that will help you in selling.

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AMERICAN STEEL & WIRE COMPANY

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Wilkes-Barre Worcester

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Export Distributors: United States Steel Products Co., 30 Church St., New York City

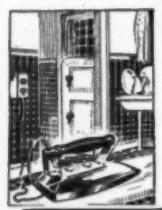
ARROW

**Nº 7711
COMBINATION**



Flash the Story of Careful Wiring

To guard against
hazards of heat-
ing appliances left
“ON”



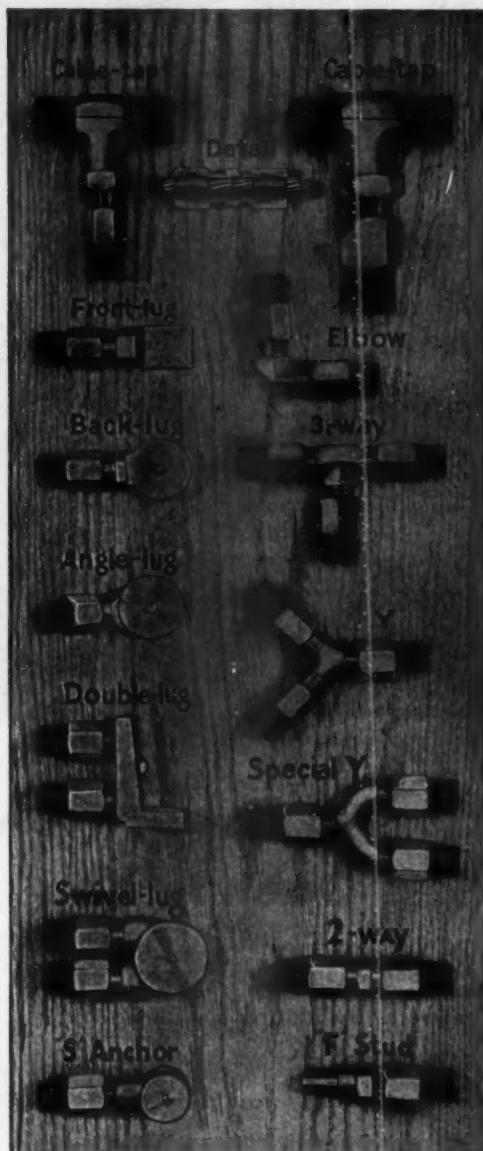
 TAKE this precaution in wiring kitchens, laundries, dining rooms, bedrooms . . . Use ARROW Receptacles with Warning Signal. Bullseye lights up RED while current is "ON" in Receptacle. Safeguards homes against overheating of heating units in electric flatirons, curling irons, heating pads, toasters, cookers. . . . ARROW "7711" comes to hand as a warning device of neatest appearance. Bullseye FLUSH with Receptacle; no projection. . . . With brass plate, or molded "Arrotex" with ribbed surface and art border. Freshly modern in style and function. Customers will see this new device as proof of careful wiring and foresighted planning. Turn it to your advantage on your NEXT jobs!

ARROW ELECTRIC DIVISION

**THE ARROW - HART & HEGEMAN ELECTRIC CO.
HARTFORD, CONN.**

DOSSERT

**SOLDERLESS CONNECTORS
SPEED THE WORK**



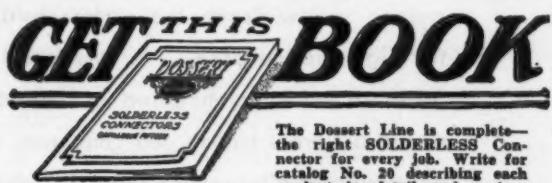
YOU ARE THE MAN TO LAND MORE WIRING JOBS

. . . *sub-stations*
. . . *industrials, etc.*

in your territory are all live and immediate prospects. One bad joint can ruin the best wiring system. With Dossert connectors you can handle difficult jobs faster and more accurately. Dossert Solderless Connectors guarantee the job for you.

*Profitable and
easy to use*

Prices are right — deliveries prompt and Dossert products are of highest quality always. You can do more work in less time and make more money on every job if you start now using Dossert Solderless Connectors.



The Dossert Line is complete—the right SOLDERLESS Connector for every job. Write for catalog No. 20 describing each product in detail and various applications which will give you latest installation tips.

DOSSERT & COMPANY

242 WEST 41ST STREET NEW YORK, U. S. A.



Schrafft's Store, Boston, Mass.

Parker, Thomas & Rice, Architects

Illuminated by Frink Reflectors

With Frink Multilite Reflectors a Great New Range of Profitable Work is Open to You

THIS view of the Schrafft's Store in Boston is a striking example of the possibilities that lie in the use of Frink Multilite reflectors. By placing a Multilite above the window heads and directing the light upward against a shirred golden yellow drape the architectural beauty of the window was preserved for night appearance . . . Multilite is a unit fixture, consisting of a series of Silverlite Reflectors mounted in a metal trough and completely wired and ready to install. From two to ten reflectors come as a unit, wired with two circuits permitting of alternate or multiple control. Various intensities and color effects are easy to achieve . . . Send for our circular 79-B for complete information.

THE FRINK CORPORATION
369 LEXINGTON AVENUE
NEW YORK CITY

A Series of Typical Jobs



The Old
Mansion



Farm Sold — gone to the city

Not until the old farmer heard that they struck oil on his property did he realize that he should have looked around a bit. His family then got up to date.

Just the same fix wiring contractors are in who have nice wiring jobs waiting just around the corner, and close their eyes to them.

For instance, herewith is shown a fine old mansion, built in the 80's. Gas lighting, then THE thing, was used. Later electricity came. The old combination fixtures were put in and the wiring installed in a crude manner. Last year a contractor was asked to make some changes in the wiring. Convincing his client that a patched-up job would not pay, would make more hazardous the already overloaded, unsafe wiring in the place, he was told to completely revamp the wiring. This home is now electrically lighted, and efficiently and safely lighted, has plenty of convenience outlets, uses electrical equipment throughout. Its owner has discovered the comforts of living. The contractor spot-lighted the outlet. "Red Seal" Armored Bushed Cable was used on the job.

There are many such staunch old homes in your city, wherever it is. Here is your market—and a big one. But it's a market for quality material—Xduct, Electroduct, Loomflex, Red Seal ABC Cable—some of the "Better Wiring Materials".



AMERICAN CIRCULAR LOOM COMPANY
90 West Street

New York

THREADED COMPOSITION BUSHINGS

| Size | $\frac{3}{8}''$ | $\frac{1}{4}''$ | $\frac{3}{16}''$ | $1''$ | $1\frac{1}{8}''$ | $1\frac{1}{4}''$ | $2''$ | $2\frac{1}{8}''$ |
|------------------------|-----------------|-----------------|------------------|-----------------|------------------|------------------|-----------------|------------------|
| Without Locknut..... | \$.05 | \$.11 | \$.14 | \$.15 | \$.20 | \$.30 | \$.45 | \$.85 |
| With Locknut..... | .09 | .15 | .18 | .24 | .30 | .45 | .77 | 1.15 |
| SOCKET BUSHINGS | | | | | | | | |
| Black Composition..... | | | | $\frac{3}{8}''$ | $\frac{1}{4}''$ | $\frac{3}{16}''$ | $\frac{1}{2}''$ | |
| For Sockets..... | | | | \$.02 | \$.02 | \$.04 | \$.08 | |

BOXES, FLOOR

NON-ADJUSTABLE TYPE

| "Full- "Lat- man" robe" Steel Fullman City Mfg. Co. Co. | Rus- sell & Stoll | Description | Price |
|---|----------------------------|---|---------|
| 477 110 | 2580 | Comp. Out. with Std. Rec. & Bell Nozzle | \$ 4.50 |
| 479 100 | 2590 | " " Less Std. Rec. with Stem Nozzle | 4.00 |
| 490 100 | 2590 | Comp. Out. Less Std. Rec. less Nozzle | 2.80 |
| 491 | .... | Comp. Out. with 20A. Polarz. Rec. & Bell Noz. | 5.40 |
| 499 300 | .... | Midget Out. with 10A. Recept. No Nozzle | 2.60 |
| 495 | .... | Square Out. Less Recept. with Bell Nozzle | 5.00 |
| 496 | .... | Square Out. With 15 Amp. Rec. & Bell Nozzle | 6.20 |
| 497 | .... | Sq. Out. With 25 A. Rec. & Large Bell Nozzle | 9.90 |

ADJUSTABLE TYPE

| | | | |
|---------|------|--|---------|
| 400 120 | 2502 | Complete-Shallow Box—Less Receptacle | \$ 4.65 |
| 400 | .... | Complete-Shallow Box—Less Receptacle | 5.25 |
| 401 130 | .... | Complete-Shallow Box With Receptacle | 5.60 |
| 401 | .... | Complete-Deep Box With Receptacle | 6.30 |
| 420 | .... | Complete Large Size Box Without Receptacle | 5.95 |
| 421 | .... | Complete Large Size Box With Receptacle | 6.60 |

ADJUSTABLE GANG TYPE

| | | | |
|---------|------|---|---------|
| 441 251 | 2511 | Single Gang Less Recept. with $\frac{1}{2}''$ Cover Plate | \$ 5.40 |
| 442 252 | 2512 | Two " " " " | 10.80 |
| 443 253 | 2513 | Three " " " " | 16.20 |
| 444 254 | 2514 | Four " " " " | 21.60 |
| 445 | 2515 | Five " " " " | 27.00 |

Extra for Brass Cover Plate and Receptacle..... Per Gang 1.65

G. E. & T & B BOXES

| G. E. | T & B | Description | Price |
|---------|---------|--|---------|
| 8000 | 8000 | Utility Outlet Box..... | \$ 1.00 |
| 8200 | 1700 | Two Wire Floor Box..... | 5.00 |
| 8220-40 | 1701 | Three Wire Floor Box..... | 6.00 |
| 8300 | 1200 | Special Outlet Extension Type..... | 2.90 |
| 8400 | .... | Master 2 Wire Plug Outlet..... | 6.50 |
| 8420-40 | 100-200 | Master 3 Wire Plug Outlet..... | 7.75 |
| .... | 1100 | Complete—Cover, Nozzle, Plug and Receptacle..... | 4.00 |
| .... |  | Complete—Cover, Nozzle, Plug and Receptacle..... | 8.25 |

BOXES, CUTOUT

TYPE "A" SURFACE CUTOUT BOXES

Black

| Width | Length | 3" | 4" | 6" | Width | Length | 3" | 4" | 6" |
|-----------------|---------------------|-----------|-----------|------|------------|-----------|-----------|-----------|----|
| Short Side | Long Side | Deep Deep | Deep Deep | Side | Short Side | Deep Deep | Deep Deep | Deep Deep | |
| 4 $\frac{1}{2}$ | 5 | \$.55 | .... | .... | 12 | 30 | \$ 10.75 | \$ 12.40 | |
| 4 $\frac{1}{2}$ | 9 | .65 | .... | .... | 15 | 15 | 2.75 | 4.15 | |
| 4 $\frac{1}{2}$ | 9 3 $\frac{1}{2}$ " | .65 | .... | .... | 15 | 18 | 3.00 | 4.75 | |
| 6 | 6 | \$.80 | \$ 1.20 | .... | 15 | 24 | 5.70 | 6.50 | |
| 6 | 8 | 1.00 | .95 | 1.40 | 15 | 30 | 13.35 | 15.30 | |
| 6 | 9 | .85 | 1.50 | 1.80 | 18 | 18 | 4.75 | 5.40 | |
| 6 | 12 | 1.35 | 1.10 | 1.95 | 18 | 21 | 10.65 | 12.50 | |
| 8 | 8 | 1.35 | 1.05 | 1.70 | 18 | 24 | 12.20 | 13.00 | |
| 8 | 10 | 1.45 | 1.20 | 2.00 | 18 | 30 | 15.20 | 15.40 | |
| 8 | 12 | 1.80 | 1.40 | 2.25 | 18 | 36 | 17.80 | 19.40 | |
| 9 | 9 | 1.15 | 1.80 | 2.30 | 18 | 40 | 19.50 | 21.30 | |
| 9 | 12 | 1.40 | 2.15 | 2.60 | 24 | 24 | 15.30 | 17.40 | |
| 10 | 10 | 1.70 | 1.40 | 2.35 | 24 | 30 | 19.10 | 20.80 | |
| 10 | 12 | 1.95 | 1.70 | 2.65 | 24 | 36 | 22.35 | 23.75 | |
| 10 | 15 | 2.35 | 1.85 | 3.10 | 24 | 40 | 24.30 | 26.60 | |
| 10 | 18 | 2.70 | 3.00 | 3.60 | 24 | 44 | 41.35 | 45.30 | |
| 12 | 12 | 2.25 | 1.80 | 3.00 | 30 | 30 | 27.20 | 29.65 | |
| 12 | 15 | 2.40 | 2.10 | 3.50 | 30 | 36 | 41.55 | 47.40 | |
| 12 | 18 | 2.50 | 4.00 | 30 | 42 | .... | 48.85 | 53.00 | |
| 12 | 24 | 4.40 | 5.40 | 30 | 48 | .... | 56.70 | 61.30 | |

For Galvanized Boxes Add 50% to above prices.

BELLS & BUZZERS

Ansonia

| Name | No. | Description | Buzzer | 2 $\frac{1}{4}''$ | 3" | 4" | Cow or Sleigh |
|---------|-----|------------------------------|--------|-------------------|---------|---------|---------------|
| .... | 656 | Sle. Coil Non Adjust. | \$.45 | \$.50 | .... | .... | .... |
| .... | 657 | Dble. Coil Non Adjust. | .50 | .55 | .... | .... | .... |
| .... | 652 | Dble. Coil Round Non Adjust. | .... | .... | .... | .... | .... |
| Wizard | 659 | Dble. Coil Non Adjust. | .90 | .95 | .... | .... | .... |
| Eureka | 641 | Dble. Coil Adjust. Class B. | 1.00 | 1.05 | \$ 1.25 | \$ 1.60 | \$ 1.90 |
| Aeme | 631 | Dble. Coil Adjust. Class A. | 1.35 | 1.40 | 1.50 | 1.85 | 2.15 |
| Eureka | 621 | Dble. Wood Box Bell | 1.30 | 1.35 | 1.45 | 1.70 | 1.90 |
| Monitor | 658 | Round Type | .... | 1.55 | .... | .... | .... |
| Monitor | 661 | Round Type | .... | 1.55 | .... | .... | .... |
| Wizard | 660 | Comb. Bell & Buzzer | 1.25 | 1.35 | .... | .... | .... |
| Wizard | 655 | Buzzer Oak Mat | 1.75 | .... | .... | .... | .... |
| Wizard | 666 | Watch Case Buzzer | 1.30 | .... | .... | .... | .... |
| Ansonia | 663 | Comb. Bell & Buzzer | .... | 1.00 | 1.10 | .... | .... |

BELLS AND BUZZERS—Continued

Edwards

| Name | No. | Size | Description | Price |
|------------|-----|-------------------|--|-------|
| Nubel | 735 | 2 $\frac{1}{4}''$ | Two Coil Non-Adjust.—Gray Enam. Bell | .65 |
| | 736 | " | " " " " Buzzer | .60 |
| Dixie | 720 | 2 $\frac{1}{4}''$ | " " " " Class C—Non-Adjust. Bell | .95 |
| | 725 | " | " " " " Buzzer | .90 |
| Combell | 737 | 2 $\frac{1}{4}''$ | Two Coil Non-Adjust.—Gray Enam. Bell & Buzz. | |
| Tubell | 738 | 2 $\frac{1}{4}''$ | Dble. Coil Non-Adjust.—Gray Enam. Two Bells | 1.15 |
| Cadet | 710 | 2 $\frac{1}{4}''$ | Two Coil—Class B—Adjust. Bell | 1.05 |
| | 715 | 2 $\frac{1}{4}''$ | " " " " Buzzer | 1.00 |
| | 712 | 2 $\frac{1}{4}''$ | " " " " Bell | 1.25 |
| | 714 | 4" | " " " " Bell | 1.60 |
| Buz-A-Bell | 730 | 2 $\frac{1}{4}''$ | Two-Coil—Class C Comb. Bell & Buzzer | 1.90 |
| Monitor | 156 | 3 $\frac{1}{4}''$ | Monitor Bell—Nickel Plated Gong | 1.55 |
| Bronx | 750 | 1 $\frac{1}{4}''$ | Nickel Watch Case Buzzer | 1.30 |

Edwards—Lungen

| Name | No. | Size | Price |
|-------------------|------|------|-------|
| 1 $\frac{1}{2}''$ | | | |
| 1 $\frac{3}{4}''$ | | | |
| 2 $\frac{1}{2}''$ | | | |
| 3 $\frac{1}{2}''$ | | | |
| 4 $\frac{1}{2}''$ | | | |
| 6 $\frac{1}{2}''$ | | | |
| Cow or Sleigh | | | |

No. 15 Buzzers

| Name | No. | Size | Price |
|---|--------|------|-------|
| 1 $\frac{1}{2}'' \times 1\frac{1}{4}''$ | No. 0. | .... | .... |
| 2 $\frac{1}{2}'' \times 1\frac{1}{4}''$ | No. 1. | .... | .... |
| 2 $\frac{1}{2}'' \times 1\frac{1}{4}''$ | No. 2. | .... | .... |
| 3 $\frac{1}{2}'' \times 2''$ | No. 3. | .... | .... |
| 3 $\frac{1}{2}'' \times 2\frac{1}{2}''$ | No. 4. | .... | .... |

Patrick & Wilkins

Iron Box Bells

| | | | |
|---|------|------|------|
| Small 2 $\frac{1}{4}''$ Iron Box Bell Non-Adjust. Dble. Magnet. | .... | .... | .... |
| Fancy Gong Cow or Sleigh Non-Adjust. Dble. Magnet. | .... | .... | .... |
| King Monitor Bell. | .... | .... | .... |
| 6 $\frac{1}{2}''$ Large Iron Box Bell for Battery Current. | .... | .... | .... |
| 8 $\frac{1}{2}''$ Large Iron Box Bell for Battery Current. | .... | .... | .... |

Buzzers

| Name | No. | Description | Regular Type | Large Type |
|-------------|--------|------------------------|--------------|---------------------------|
| Competition | 400-1 | Dble. Coil Non-Adjust. | \$ 2.20 | 6 $\frac{1}{2}''$ Regular |
| Eclipse | 200-1 | " " " " | 2.30 | 8 $\frac{1}{2}''$ " |
| | 211-18 | " " " " B. | .90 | .95 |
| XXX | 221-29 | " " " " A. | 1.00 | 1.05 |
| Mario | 221-29 | " " " " A. | 1.65 | 1.70 |
| Eclipse | 208 | Comb. Bell & Buzzer | 1.25 | 1.25 |
| Competition | 402 | " " " " | 1.25 | 1.15 |
| Midget | 331-34 | All Nickel Bell | 1.50 | 1.85 |
| P. R. | 240 | Watch Case Buzzer | 1.45 | .... |
| P. R. | 238 | Monitor | 1.55 | .... |

| Name | No. | Description | 4 $\frac{1}{2}''$ Bell | 8 $\frac{1}{2}''$ Cow or Sleigh |
|-------------|--------|------------------------|------------------------|---------------------------------|
| Competition | 400-1 | Dble. Coil Non-Adjust. | \$ 1.35 | .... |
| Eclipse | 200-1 | " " " " | 1.60 | \$ 1.00 |
| | 211-18 | " " " " B. | 2.25 | 2.65 |
| XXX | | | | |

Push Buttons, Etc.

PUSH BUTTONS, THREADS, SPRINGS

STANDARD PUSH BUTTONS AND THREADS

| Description | Ans. | Edw. | Fara. | P&W | Price |
|---|------|------|-------|------|--------|
| Round 1 1/4" and 1 1/4" Stamped Brass..... | 506 | 603 | SP51 | 29 | \$0.25 |
| Round 2 1/4" Stamped Brass..... | 527 | 600 | SP50 | 27 | .25 |
| Round 2 1/4" with Card Holder Brass..... | 507 | 601 | SP57 | 25 | .40 |
| Rectangular 4x2" S. B. Brass..... | 504 | SP54 | 55 | .40 | |
| Rectangular 3 1/2" x 1 1/2" S. B. Brass..... | 605 | SP53 | 50 | .40 | |
| Oval 2 1/2" x 1 1/2" S. B. Brass..... | 606 | SP55 | 35 | .30 | |
| Oval 4 1/2" x 2" S. B. Brass..... | 609 | SP56 | 35 | .45 | |
| Pear Push Buttons—Wood or Composition..... | 305 | 67 | 59 | 3 | .00 |
| Pear Push Buttons—Metal, Nickel or Brass..... | 68 | MP8 | 35 | .85 | |
| Desk Buttons—1/4" Hole—Nickel..... | 362 | 59 | 7A | ... | .75 |
| Desk Buttons—1/4" Hole—Nickel..... | 63 | ... | 65 | ... | .65 |
| Desk Buttons—1/4" Hole—Nickel..... | D33 | 620 | SA | ... | .45 |
| High Voltage 1/4" Hole—110 Volts..... | 85 | ... | 855 | 2.40 | |
| Table Clamp with Push Button..... | 571 | 206 | TC1 | ... | 1.00 |
| Floor Pusher Combination Nickel..... | 560 | 235 | CFP2 | ... | .85 |
| Floor Treads—"Daisy" "Dixie"..... | 800 | 290 | FT1 | ... | 1.50 |
| Wood Push Buttons..... | ... | ... | ... | ... | .20 |

COMPOSITION MOULDED PUSH BUTTONS

| | | | |
|---|--------|--|--------|
| Round Plain 1 1/4" Dia..... | \$0.35 | Rectangular Plain 1 1/4" x 3 1/4"..... | \$0.45 |
| Octagon Fancy 1 1/4" x 1 1/4" Dia..... | .40 | Rectangular Fancy 1 1/4" x 3 1/4"..... | .70 |
| Oct. Card Holder 2 1/4" x 2 1/4" Dia..... | .50 | Rec. Double Card Holder..... | .90 |

DESK PUSHES—COMPOUND

With Buttons

| Make and Description | Button | Button | Button | Button | Button | Button |
|---|--------|--------|--------|--------|--------|--------|
| Edw. #146—Bakelite Block..... | \$2.10 | \$2.50 | \$3.20 | \$3.65 | \$4.50 | \$5.25 |
| Edw. #197 Less Cord Bakelite Bl..... | 3.50 | 4.75 | 6.00 | 7.25 | 8.50 | 9.75 |
| Edw. #197 with 6" Cord Bakelite Bl..... | 4.05 | 6.10 | 7.75 | 9.45 | 11.15 | 12.85 |
| Edw. #190 Wood—Less Cord..... | 4.00 | 5.35 | 6.60 | 8.10 | 9.40 | 10.80 |
| Edw. #190 Wood with Cord..... | 4.45 | 6.65 | 8.35 | 10.30 | 12.05 | 13.90 |
| Fara. #4C Wood Less Cord..... | 2.00 | 2.30 | 2.60 | 3.05 | 3.50 | 3.90 |
| Fara. #2A Wood Less Cord..... | 4.90 | 7.00 | 8.50 | 10.60 | 12.40 | 13.80 |
| Fara. B.D.P. Bakelite Less Cord..... | 3.50 | 4.75 | 6.00 | 7.25 | 8.50 | 9.75 |
| Fara. M.D.P. All Metal Less Cord..... | 6.00 | 11.00 | 16.00 | 21.00 | ... | ... |
| P&W #4 Wood Less Cord..... | 2.60 | 2.80 | 3.50 | 4.30 | 4.85 | 5.60 |
| P&W #45 Wood Angle Less Cord..... | ... | ... | 13.00 | ... | 13.95 | ... |
| P&W #12 Wood Less Cord..... | 3.30 | 4.25 | 5.45 | ... | 6.00 | ... |

DOOR AND WINDOW SPRINGS

| Door Springs | Window Springs |
|----------------------------------|----------------|
| Open Circuit Door Spring..... | \$0.40 |
| Closed Circuit Door Spring..... | .50 |
| Open Circuit Make and Break..... | .50 |
| Open Circuit Door Trip..... | 1.00 |
| Open Circuit Transom..... | 1.60 |

OTHER PUSH BUTTONS

Ansonia

| Round Stamped | Price | Round Cast | Price |
|----------------------------|--------|-------------------------------|--------|
| 514 1 1/4" Loose Back..... | \$0.30 | 511 1 1/4" Loose Back..... | \$0.90 |
| 515 2 1/4" Loose Back..... | .40 | 512 2 1/4" Loose Back..... | 1.00 |
| 513 1 1/2" Loose Back..... | .95 | 508-10 2 1/4" Loose Back..... | 1.00 |
| 579 1 1/2" Flush Push..... | 1.00 | 540 2 1/4" Loose Back..... | .60 |
| E33 1 1/4" Flush Push..... | 1.00 | 550 2 1/4" Loose Back..... | .85 |
| | | 570 2 1/4" Loose Back..... | .75 |

Other Ansonia Push Buttons, Etc.

| | | | |
|--|--------|----------------------------------|----------|
| F-33 Stamped Flush Push..... | \$0.70 | 545 Oblong 2 Gang for Cards..... | \$1.85 |
| G-33 Stamped Diamond Push..... | .70 | 545 Oblong 3 Gang for Cards..... | 2.65 |
| 521-524 Stamped Push..... | .75 | 545 Oblong 4 Gang for Cards..... | 3.65 |
| 528-534 Stamped Push..... | .95 | 546 Oblong 1 Gang..... | 1.65 |
| 536-537 Stamped Push..... | 1.00 | 547 Oblong 2 Gang..... | 1.50 |
| 538 Stamped Oblong Push..... | 1.25 | 548 Oblong 1 Gang..... | .75 |
| 541 Oblong for Card..... | 1.65 | 549 Oblong 1 Gang..... | 1.20 |
| 543 Oblong 2 Point..... | 1.25 | 577 Diamond Push..... | .70 |
| 544 Oblong for Card..... | 1.20 | 578 Diamond Push..... | .75 |
| Combination Floor Pushes Complete 573..... | ... | ... | \$2.50 C |
| Combination Floor Pushes Complete 575..... | ... | ... | 2.65 C |
| 700 1 Point Wood Base Switch..... | ... | ... | .45 C |

Edwards

| Round Desk Buttons | Oblong Push Buttons | |
|----------------------|---------------------------|-----|
| 621—1 1/4" Hole..... | \$1.40 | |
| 622—2 1/4" Hole..... | 1.45 | |
| 625—3 1/4" Hole..... | .50 | |
| | 608—Single for Cards..... | .40 |
| | 609—Single..... | .45 |

Partrick & Wilkins

| Round Push Buttons | |
|--|--------|
| Stained Wood Push #2..... | \$0.15 |
| Oak Wood Regular #1..... | .35 |
| Oak Open, Closed and Dbl. Cont. #1..... | .65 |
| Oak Triple Contact #1..... | .90 |
| Cast Brass 1 1/2" Diam. #8..... | .70 |
| Cast Brass 2 1/2" Diam. #9..... | .75 |
| 16 Cast Brass 4 1/4" x 1 1/4" Screw Cap..... | \$1.55 |
| 31 Cast Brass 5 1/2" x 2 1/2" Screw Cap..... | 2.80 |
| 44 Cast Brass 4 1/2" Screw Cap..... | 1.40 |
| 708 Wrought Push and Speak 1 Pce..... | 1.35 |
| 907 2 Button and Card Holder..... | 2.15 |
| 908 3 Button and Card Holder..... | 2.95 |
| 909 4 Button and Card Holder..... | 4.55 |
| Oblong Pushes | |

OTHER PUSH BUTTONS—Continued

Partrick & Wilkins

Desk Push Buttons

| | |
|--------------------------------------|-------|
| Car Push 1/4" Hole Black Center..... | 90.45 |
| Multiple 3/8" Hole Black Center..... | 1.35 |
| Pony 1/4" Hole Black Center..... | 1.85 |

Pear Shape Pushes

| | |
|------------------------------|--------|
| Compound Maple 2 Button..... | \$2.00 |
| Compound Maple 3 Button..... | 3.00 |
| #4 Fancy Pear Two Piece..... | .25 |
| Wood Rosettes for above..... | .40 |

MULTIPLE PUSH BUTTONS

Couch "Pushrites"

With Card Holders

| Number of Buttons | Plain Base Number | Plain Base Price | Weighted Base Number | Weighted Base Price | Flush Brass Plate Type |
|-------------------|-------------------|------------------|----------------------|---------------------|------------------------|
| 4 | 7900 | \$3.35 | 7980 | \$3.75 | 7940 \$ 5.00 |
| 6 | 740 | 4.60 | 789 | 5.20 | — |
| 8 | 7910 | 5.80 | 7990 | 6.65 | 7950 9.15 |
| 12 | 7921 | 8.30 | 79010 | 9.60 | 7960 13.30 |
| 16 | 7930 | 10.80 | 79020 | 12.45 | 7970 17.50 |
| 20 | 793 | 13.30 | 7902 | 15.40 | 797 21.60 |

COUCH UNMOUNTED PUSH BUTTONS "WORKRITES"

| | |
|--------------------------------|--------|
| No. 97 for 1/2" Hole..... | \$0.50 |
| Adaptor No. 0684 for same..... | .05 |

BRACKETS FOR INSULATORS

WOOD BRACKETS

| | Each | Each | |
|----------------------------|------|------------------------|-----|
| 1 1/4" x 2" x 10"..... | .10 | 1 1/4" x 2" x 12"..... | — |
| 1 1/4" x 2" x 12"..... | .10 | 2" x 2 1/4" x 12"..... | .12 |
| 1 1/4" x 2 1/4" x 12"..... | .10 | 2" x 2 1/4" x 12"..... | .12 |

PINS

| | Each | Each | |
|-------------------------|------|-------------------------|-----|
| Locust 1 1/4" x 8"..... | .10 | Locust 1 1/4" x 9"..... | .12 |
| Oak 1 1/4" x 8"..... | .05 | Oak 1 1/4" x 9"..... | .08 |

HOUSE BRACKETS WITHOUT INSULATORS

Peirce

| No. | Light Type Points | Heavy Type Points | Corner Type Points | Price |
|------|-------------------|-------------------|--------------------|--------|
| 1607 | Wires One | 0 | 0 | \$.25 |
| 190 | " | 0 | 0 | .30 |
| 191 | " | 0 | 0 | .35 |
| 296 | Two | 6 | 6 | .55 |
| 299 | " | 9 | 9 | .60 |
| 394 | Three | 4 1/2 | 4 1/2 | .80 |
| 396 | " | 6 | 6 | .85 |

WIREHOLDERS WITH INSULATORS

Peirce

| No. | Light Type Wires | Heavy Type Wires | Space | Price |
|------|------------------|------------------|-----------|--------|
| 276 | 2 6" | 2 6" | 0 | \$1.30 |
| 376 | 3 6" | 3 6" | 0 | 2.15 |
| 1276 | 2 6" | 85 | 1278 2 6" | 1.30 |
| 1376 | 3 6" | 1.20 | 1374 3 6" | 1.35 |
| 2768 | 2 6" | .90 | 2768 2 6" | 1.35 |
| 3768 | 3 6" | 1.30 | 3768 3 6" | 2.00 |

INSULATORS ONLY FOR ABOVE BRACKETS

Peirce

| | | | |
|--------------------|--------|---------------------|---------|
| 555 Insulator..... | \$.18 | 1602 Insulator..... | \$ 1.12 |
| 336 | .25 | 1603 | .10 |

| HOUSE BRACKETS WITHOUT INSULATORS | | | | | | | | | | | |
|-----------------------------------|--------|------------|------------|--------|------------|-------------|--------|------------|-----|--------|------------|
| National Elec. Products | | | | | | | | | | | |
| Light Type | | | Heavy Type | | | Corner Type | | | | | |
| No. | Points | Price Each | No. | Points | Price Each | No. | Points | Price Each | No. | Points | Price Each |
| 108-10 | 1 | .25 | 109-10 | 1 | .40 | 111-10 | 1 | .30 | | | |
| 108-26 | 2 | .60 | 123-6-7 | 1 | .35 | | | | | | |
| 108-29 | 2 | .60 | 109-26 | 2 | .85 | | | | | | |
| 108-36 | 3 | .95 | 109-29 | 2 | .85 | 111-29 | 2 | .60 | | | |
| | | | 109-36 | 3 | 1.20 | 111-36 | 3 | .85 | | | |

HOUSE RACKS WITH INSULATORS

National Elec. Products

| Light Type | | | Heavy Type | | | | |
|------------|----------------|--------------------------------|------------|----------------|-------------------------------|--------------------------------|--------|
| No. | Points | Length | No. | Points | Length | | |
| 104-10 | 1 | 5 ¹ / ₂ | \$.40 | 101-24 | 2 ¹ / ₂ | 9 ¹ / ₂ | \$1.10 |
| 104-26 | 2 | 11 ¹ / ₂ | .85 | 101-28 | 2 ¹ / ₂ | 18 ¹ / ₂ | 1.60 |
| 104-33 | 3 | 11 ¹ / ₂ | 1.00 | 101-34 | 3 | 18 ¹ / ₂ | 1.75 |
| 104-36 | | 15 | 1.25 | 101-38 | 4 | 21 ¹ / ₂ | 2.40 |
| 104-53 | 5 | 18 | 1.65 | 101-44 | 4 | 17 ¹ / ₂ | 2.20 |
| 104 | Insulator Only | | .10 | Insulator Only | | | .18 |

WIREHOLDER ACCESSORIES

National Elec. Products

| | | | |
|---------------------------|--------|------------------------------|--------|
| No. 3000 Corner Chair.... | \$.13 | No. 5040 Break Arm Strap.... | \$.14 |
| No. 5020 Insulator..... | .18 | No. 5051 " Bolt..... | .20 |
| No. 5021 U Bolts & Nuts.. | .10 | No. 5052 T Head Screw..... | .03 |

SINGLE POINT WIREHOLDERS

National Elec. Products

| No. | No. | No. | No. |
|-----------|--------|-----------|--------|
| 5311..... | \$.25 | 5311..... | \$.20 |
| 5314..... | .35 | 5314..... | .30 |
| 5315..... | .45 | 5315..... | .35 |

WIREHOLDERS WITH INSULATORS

National Elec. Products

| For One Wire | Each | For Two Wires | Each | For Three Wires | Each |
|---------------|--------|---------------|--------|-----------------|--------|
| No. 5011..... | \$.25 | No. 5002..... | \$.60 | No. 5003..... | \$.85 |
| No. 5001..... | .25 | No. 5012..... | .60 | No. 5023..... | |

| WIREHOLDERS WITH INSULATORS | | | | | | | | | | | |
|-----------------------------|----------------|--------------------------------|-------|------------|----------------|--------------------------------|-------|--|--|--|--|
| National Elec. Products | | | | | | | | | | | |
| Light Type | Points | Length | Each | Heavy Type | Points | Length | Each | | | | |
| 105-X | 1 | " | \$.30 | 105-1 | 1 | " | \$.60 | | | | |
| 105-1 | 1 | 5 ¹ / ₂ | .80 | 106-10 | 1 | 6" | .65 | | | | |
| 105-10 | 1 | 4 ¹ / ₂ | .80 | 106-26 | 2 | 10 ¹ / ₂ | 1.25 | | | | |
| 105-26 | 2 | 10 ¹ / ₂ | .50 | 106-29 | 2 | 14 ¹ / ₂ | 1.30 | | | | |
| 105-29 | 2 | 13 ¹ / ₂ | .50 | 106-36 | 3 | 17 ¹ / ₂ | 1.85 | | | | |
| 105-34 | 3 | 13 ¹ / ₂ | .85 | 106-36X | 3 | 17 ¹ / ₂ | 1.05 | | | | |
| 105-36 | 3 | 16 ¹ / ₂ | .85 | 106-36X | 3 | 17 ¹ / ₂ | .85 | | | | |
| 105 | Insulator Only | | | 106 | Insulator Only | | | | | | |

B-SUNDRIES, BOLTS, ETC.

CARRIAGE BOLTS

Galvanized

| Length | | | | | | | |
|--------|---------------------------------|-----|---------------------------------|-----|---------------------------------|-----|--------|
| 3" | 3 ¹ / ₂ " | 4" | 4 ¹ / ₂ " | 5" | 5 ¹ / ₂ " | 6" | |
| .05 | .05 | .05 | .05 | .06 | .07 | .07 | \$.08 |
| " | " | " | " | .10 | .10 | .11 | .12 |

| MACHINE BOLTS WITHOUT WASHERS | | | | | | | | | | | |
|-------------------------------|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Galvanized | | | | | | | | | | | |
| Diam. | Length | | | | | | | | | | |
| 3/16" | .05 | .06 | .07 | .08 | .08 | .09 | .10 | .10 | .12 | .12 | .15 |
| " | .08 | .09 | .10 | .11 | .12 | .13 | .15 | .15 | .18 | .20 | .21 |
| " | .12 | .13 | .14 | .15 | .16 | .17 | .19 | .22 | .24 | .26 | .28 |
| " | .15 | .16 | .17 | .19 | .20 | .22 | .25 | .28 | .30 | .33 | .36 |

STOVE BOLTS

Round or Flat Head

| Length | 1 ¹ / ₂ " | 2" | 2 ¹ / ₂ " | 3" | 3 ¹ / ₂ " | 4" | 4 ¹ / ₂ " | 5" | 5 ¹ / ₂ " | 6" | 7" |
|---------------------------------------|---------------------------------|--------|---------------------------------|--------|---------------------------------|--------|---------------------------------|----|---------------------------------|----|----|
| Up to 1" | Long Per Dz. | \$.10 | \$.10 | \$.12 | \$.15 | \$.20 | | | | | |
| 1 ¹ / ₂ " to 2" | " | " | " | " | " | " | " | " | " | " | |
| 2 ¹ / ₂ " to 3" | " | " | " | " | " | " | " | " | " | " | |
| 3 ¹ / ₂ " to 4" | " | " | " | " | " | " | " | " | " | " | |

TOGGLE BOLTS, STEEL

"Paine"

| Size—Diameter | 2" | 3" | 3 ¹ / ₂ " | 4" | 5" | 6" |
|---------------------------|--------|--------|---------------------------------|--------|------|------|
| 1/8" Long Price Each..... | \$.10 | \$.10 | \$.10 | \$.10 | .... | .... |
| " " " " | .10 | .10 | .10 | .10 | .11 | .12 |
| " " " " | .10 | .10 | .10 | .10 | .11 | .12 |
| " " " " | .11 | .11 | .12 | .12 | .13 | .13 |
| " " " " | .13 | .... | .... | .14 | .14 | .15 |

NOTE: For Brass Toggle Bolts— $\frac{3}{4}$ times above prices.

ROUND FIXTURE BLOCKS

Solid Half or Full Plowed

| 3" x 4" Round | \$.12 | 4" x 5" Round | \$.15 | 5" x 6" Round | \$.18 |
|--|--------|---------------|--------|---------------|--------|
| Ceiling Button—P & S Porcelain No. 170—Each..... | | | | | |
| Switch Bases—See Snap Switches Page PL-19. | | | | | |

CORDS, FIXTURE, LAMP AND HEATER

SINGLE FIXTURE CORD

| Single Lamp Cord | Type | Price Per Foot | No. 18 | No. 16 | No. 14 | No. 12 |
|-----------------------------------|------|---------------------------------|---------------------------------|------------------------------------|---------------------------------|------------------------------------|
| Single Cotton Covered Cord—Light | P-64 | \$.01 | \$.02 | \$.02 ¹ / ₂ | \$.03 | \$.03 ¹ / ₂ |
| Single Cotton Covered Cord—Heavy | F-32 | .01 ¹ / ₂ | .02 | .02 ¹ / ₂ | .03 | .03 ¹ / ₂ |
| Single Artificial Silk Cord—Light | P-64 | .01 ¹ / ₂ | .02 ¹ / ₂ | .03 | .03 ¹ / ₂ | .04 |
| Single Artificial Silk Cord—Heavy | F-32 | .02 | .03 | .04 | .04 ¹ / ₂ | .05 |

DOUBLE LAMP CORD

| Regular Lamp Cord | Type | Price Per Foot | No. 18 | No. 16 | No. 14 | No. 12 |
|----------------------------------|------|------------------------------------|------------------------------------|------------------------------------|--------|------------------------------------|
| Cotton Covered Twisted Pair..... | C | \$.02 ¹ / ₂ | \$.03 ¹ / ₂ | \$.03 ¹ / ₂ | \$.04 | \$.04 ¹ / ₂ |
| " " Parallel Pair..... | P | .08 | .05 | .07 | .08 | .08 ¹ / ₂ |
| " " Twisted Parallel Pair..... | PD | .03 ¹ / ₂ | .05 | .06 | .07 | .07 ¹ / ₂ |

REINFORCED CORD

| Not Asbestos | Type | Price Per Foot | No. 18 | No. 16 | No. 14 | No. 12 |
|-----------------------------------|------|----------------|--------|--------|--------|--------|
| Cotton Covered Light Type 1/4" PS | P | \$.04 | \$.05 | \$.05 | \$.07 | \$.10 |
| " Heavy 1/4" P | P | .05 | .06 | .06 | .08 | .12 |
| Weatherproof Light Type 1/4" PSWP | PSWP | .04 | .05 | .05 | .07 | .10 |

HEAVY DUTY PORTABLE CORD

"Duracord" or Similar. Extra Reinforced

| Type | Price Per Foot | No. 18 | No. 16 | No. 14 | No. 12 |
|--------------------------------------|----------------|--------|--------|--------|--------|
| Stand. Twisted or Wound Asbest. 1/4" | \$.04 | \$.05 | \$.05 | \$.07 | \$.10 |
| American Beauty Heater Cord..... | | | | | |

Conduit

CONDUIT, ELBOWS, COUPLINGS,
BUSHINGS, ETC.

RIGID CONDUIT

| | Black Per Foot | Galv'd. Per Foot | Cutting & Threading Per Thread | Cutting Only Per Cut |
|-----|-------------------|---------------------|--------------------------------------|----------------------------|
| 16" | \$.10 | \$.11 | \$.20 | \$.10 |
| 18" | .13 | .14 | .30 | .10 |
| 20" | .18 | .20 | .35 | .10 |
| 24" | .24 | .27 | .30 | .15 |
| 28" | .29 | .32 | .35 | .15 |
| 30" | .30 | .43 | .40 | .20 |
| 32" | .62 | .68 | .50 | .20 |
| 34" | .81 | .90 | .60 | .30 |
| 36" | 1.03 | 1.12 | .70 | .30 |
| 40" | 1.25 | 1.37 | .80 | .30 |

THIN WALL CONDUIT

| | | Price |
|--|--------|--------|
| Threadless Thin Wall Conduit, Per Foot..... | \$.00 | \$.12 |
| Adaptor, Each..... | .08 | .12 |
| Coupling or Connector, Each..... | .22 | .30 |
| Note—One Coupling with Bushings is Included with Each 10 Foot Length of Conduit. | | .40 |

ELBOWS OR BENDS, COUPLINGS, OR UNIONS,
BUSHINGS, LOCKNUTS, REDUCERS

Price Each

| Size Each | Bends or Elbows | | Couplings | | Bushings | | Locknut Unions | | Erickson Reducers |
|--------------|-----------------|------------------|----------------|------------------|----------------|----------------|----------------|----------------|----------------------|
| | Black Black | Galv'd. Galv. | Black Black | Galv'd. Galv. | Galv. Galv. | Galv. Galv. | Galv. Galv. | Galv. Galv. | |
| 16" | \$.15 | \$.17 | \$.10 | \$.11 | \$.02 | \$.01 | \$.40 | \$.21 | |
| 18" | .19 | .22 | .14 | .16 | .02 | .01 | .55 | .21 | |
| 20" | .28 | .32 | .18 | .19 | .05 | .02 | .75 | .28 | |
| 24" | .39 | .43 | .24 | .26 | .08 | .05 | 1.20 | .42 | |
| 28" | .52 | .58 | .30 | .32 | .10 | .08 | 1.66 | .56 | |
| 32" | .83 | .96 | .40 | .43 | .20 | .11 | 3.25 | .70 | |
| 36" | 1.40 | 1.60 | .57 | .63 | .30 | .19 | 6.40 | 1.30 | |
| 40" | 3.70 | 4.20 | .80 | .88 | .40 | .32 | 9.75 | 1.76 | |
| 48" | 8.25 | 9.25 | 1.08 | 1.20 | .88 | .40 | .... | 2.60 | |
| 56" | 9.50 | 10.60 | 1.35 | 1.45 | 1.40 | .58 | .... | 3.58 | |
| | | | | | | | | | Also on Page PL-10. |
| | | | | | | | | | Also on Page PL-6 |
| | | | | | | | | | Also on Page PL-12 |

FLEXIBLE METALLIC CONDUIT
"Greenfield", "Flexsteel", or Equivalent

| | 16" | 18" | 20" | 24" | 30" | 36" | 40" | 48" | 56" |
|---|--------|--------|--------|--------|--------|--------|--------|--------|-----|
| Single Strip Per Foot.... | \$.00 | \$.12 | \$.15 | \$.21 | \$.38 | \$.45 | \$.64 | \$.79 | |
| Double Strip Per Foot.... | .11 | .14 | .17 | .24 | .42 | .50 | .71 | .89 | |
| For Fittings for Metallic Conduit See Page PL-14. | | | | | | | | | |
| For Non-Metallic Conduit or Loom See Page PL-15. | | | | | | | | | |
| For Steel Armored Cable & Lead Covered See Next Item. | | | | | | | | | |

CABLE, ARMORED & NON-METALLIC SHEATHED

ARMORED CABLE, "BX", "ABC", "FLEXSTEEL", OR SIMILAR

| TWO CONDUCTOR | Solid | Stranded | Price Per Foot | | |
|---|----------|--------------|----------------|--------|--------|
| | | | No. 14 | No. 12 | No. 10 |
| THREE CONDUCTOR | Solid | " | \$.06 | \$.10 | \$.14 |
| FOUR CONDUCTOR | Solid | " | " | " | " |
| ONE CONDUCTOR | Solid | " | .21 | .26 | .... |
| OVALFLEX | Stranded | " | " | .12 | .13 |
| 2 Conductor | " | " | " | " | .17 |
| 3 Conductor | " | " | " | " | .13 |
| | | | | | |
| TWO CONDUCTOR | Solid | Single Strip | Price Per Foot | No. 8 | No. 6 |
| THREE CONDUCTOR | Stranded | " | \$.20 | \$.32 | \$.49 |
| FOUR CONDUCTOR | Solid | " | " | " | " |
| ONE CONDUCTOR | Solid | " | " | .12 | .13 |
| OVALFLEX | Stranded | " | " | " | .17 |
| 2 Conductor | " | " | " | " | .13 |
| 3 Conductor | " | " | " | " | .13 |
| | | | | | |
| TWO CONDUCTOR | Solid | Single Strip | Price Per Foot | No. 8 | No. 6 |
| THREE CONDUCTOR | Stranded | " | \$.22 | \$.32 | \$.49 |
| FOUR CONDUCTOR | Solid | " | " | " | " |
| ONE CONDUCTOR | Solid | " | " | .12 | .20 |
| OVALFLEX | Stranded | " | " | " | .34 |
| 2 Conductor | " | " | " | " | .... |
| 3 Conductor | " | " | " | " | .... |
| | | | | | |
| Double Strip Armored Cable add 30% to above prices. | | | | | |
| Anti-Short Fibre Bushings for ABC Cable, Each..... | | | | | \$.01 |
| Clips or Staples $\frac{3}{8}$ " for Armored or Non-Metallic Cable, Each..... |  |  |  |  | .... |

"ABC" LEAD COVERED ARMORED CABLE

| Single Conductor Solid Lead Covered..... | Price Per Foot | | |
|--|----------------|---------|---------|
| | No. 14 | No. 12 | No. 10 |
| Two Conductor Solid..... | \$.18 | .... | .... |
| Two Conductor Stranded..... | \$.32 | \$.35 | \$.40 |
| Three Solid..... | \$.43 | \$.50 | \$.56 |
| Three Stranded..... | .... | .... | .... |
| Single Conductor Solid Lead Covered..... | Price Per Foot | No. 8 | No. 6 |
| Two Solid..... | \$.38 | \$ 0.52 | .... |
| Two Stranded..... | \$.45 | \$.58 | .... |
| Three Solid..... | \$.58 | \$ 1.24 | \$ 1.72 |

Electrical Contracting, April, 1930

"ABC" ARMORED LAMP CORD

| Single Strip | No. 18 | No. 16 | No. 14 | Per Foot |
|---|---------|---------|---------|----------|
| Plain Armored Lamp Cord, Two Conductor..... | \$ 1.13 | \$ 1.14 | \$ 1.19 | |

Add 30% for Double Strip

NON-METALLIC SHEATHED CABLE
"Romex", "Loomwire", "Wireflex", or similar

| (With or Without Ground Wire) | #14 | #12 | #10 | #8 | #6 | #4 |
|--------------------------------|---------|---------|---------|---------|---------|---------|
| Wire 2 Conductor per Foot..... | \$ 0.05 | \$ 0.07 | \$ 0.10 | \$ 0.15 | \$ 0.21 | \$ 0.30 |
| Wire 3 Conductor per Foot..... | .08 | .12 | .15 | .23 | .30 | .43 |
| Fitting-Straps Each..... | .01 | .01 | .01 | .01 | .01 | .01 |
| Fitting-Clips Each..... | .03 | .03 | .03 | .... | .... | .... |
| Fitting-Connectors Each..... | .10 | .10 | .20 | .30 | .55 | .... |

CUTOUTS OR FUSE BLOCKS

PLUG CUTOUTS

30 Amp. Porcelain

| Description | Price |
|---|---------|
| Single Pole—Main Line..... | \$ 2.50 |
| Double " | .35 |
| Triple " | .50 |
| Double Pole Single Branch..... | .35 |
| " Double Single or Double Cross Branch..... | .55 |
| Triple to D. P. Double Branch..... | .60 |
| Triple Pole Single Branch..... | .65 |
| " Double " | .85 |

DEAD FRONT CUTOUT BASES

Plug Type—30 Amp.

| | With Short Cover Numbers | With Long Cover Numbers | Price |
|-------------------------------------|-----------------------------|----------------------------|---------|
| BRYANT Dbl. Pole Single Branch..... | 71035 or 71035 | 71035 | \$.95 |
| " Dbl. " 72587 " 72087 | 72587 | 72087 | 1.45 |
| Trips to Dbl. Pole Dbl. Branch..... | 72199 | 72099 | 1.65 |
| 3 Wire Single Branch—2 Circuit..... | 2435 | 3199 | \$ 1.35 |
| 3 " Double " 4 | 2440 | 4199 | 2.00 |

G. E. or TRUMBLELL With Covers Without Cov.

G. E. Trumbull Price G. E. Price

| 3 Wire Single Branch—2 Circuit..... | G. E. Trumbull | Price | G. E. Price |
|-------------------------------------|----------------|-------|-------------|
| 3 " Double " 4 | 2440 | 4199 | 2.00 |

SLATE BASE

250 Volt 600 Volt 30 A. 60A. 100A. 200A. 400A. 600A.

Single Pole-Slate Base-250 V..... \$.85 \$.90 \$ 1.75 \$ 2.85 \$ 6.95 \$ 9.50

" 600 V..... \$.80 1.15 2.00 3.15 7.90 10.25

Prices on cutouts do not include fuses

G-SUNDRIES

GROUND CLAMPS

| | 3/8" | 1/2" | 3/4" | 1 1/4" | 1 1/2" | 2" | 2 1/4" | 3" |
|--|---------|---------|---------|---------|---------|---------|---------|---------|
| Standard Adjustable Ground Clamps, any make..... | \$ 1.12 | \$ 1.15 | \$ 2.20 | \$ 3.35 | .... | .... | .... | .... |
| Blackburn..... | \$ 2.24 | \$ 2.28 | \$ 3.35 | \$ 4.45 | .... | .... | .... | .... |
| Other Types | .... | .... | .... | .... | .... | .... | .... | .... |
| Chase Shawmut 3660-68 G. V. A Series 5000... | \$ 2.25 | \$ 3.30 | \$ 3.35 | \$ 4.45 | \$ 5.50 | \$ 6.60 | \$ 6.65 | \$ 7.70 |

STRAPS, CLIPS OR CLAMPS

For Pipe, Without Screws

Galvanized Straps, 2 Holes \$.01 \$.01 \$.01 \$.02 \$.02 \$.04 \$.06 \$.08

Per Pound..... \$.20

No. Straps per Pound..... 45 40 25 20 13 12 7 5 4

Light Steel Straps, 1 Hole .04 .05 .06 .08 .11 .18 .25 .45 .60 .80

Mail-Iron Clamps, 1 Hole .06 .07 .08 .11 .18 .25 .45 .60 .80 .80

P & S Conduit Clamps With Bolts-Series 1400 .10 .14 .18 .20 .25

(See Also Page PL-25)

COLORING & FROSTING LIQUID

| | 7 ounce Cans | 16 ounce Cans | 30 ounce Cans | 1/4 Pint Bottle | 1 Pint Bottle | Quart Bottle |
|------------------------|-----------------|------------------|------------------|--------------------|------------------|-----------------|
| Crescent (McGill)..... | | | | \$ 1.25 | \$ 2.50 | \$ 5.00 |
| Cefco..... | \$ 2.50 | \$ 4.00 | \$ 7.50 | .... | .... | .... |
| Francis..... | .... | .... | .... | 1.25 | 2.25 | 4.00 |
| Permacolor..... | .... | .... | .... | 1.65 | 3.00 | 5.00 |
| Clips for Loom..... | .... | .... | .... | .... | .... | .... |
| Crowfoot..... | \$ 1.40 | \$ 1.40 | \$ 1.40 | \$ 1.05 | \$ 1.10 | \$ 1.10 |

CORD & WIRE CONNECTORS

SMALL FIXTURE & WIRE CONNECTORS

Solderless

Insulated Solderless Wire or Fixture Connectors Similar to "Simplex"
"Wirenuts" "Marr" "NoTorch" "Wirelets" "Ideal" "Wiremold" Etc.—each \$1.10
Non-Insulated Solderless Wire Connectors—2 Screw—All Metal..... \$1.10

SET SCREW CONNECTORS

Round Brass

| Wire Size | No. | No. | No. | No. | No. |
|----------------------------|-------|-------|-------|-------|-------|
| Divided Wall—2 Screws..... | 12-14 | 10 | 8 | 6 | 4 |
| " " 4 " | ..... | ..... | 16 | 12 | .13 |
| Hole Thru 2 " | ..... | 11 | ..... | 13 | .15 |
| " " 4 " | ..... | ..... | ..... | ..... | .20 |
| Wire Size | No. | No. | No. | No. | No. |
| Divided Wall—2 Screws..... | 2 | 1/0 | 2/0 | 3/0 | 4/0 |
| " " 4 " | ..... | 20 | 26 | 32 | 50 |
| Hole Thru 2 " | ..... | 20 | 24 | 30 | ..... |
| " " 4 " | ..... | 22 | 28 | 30 | .45 |
| | | | | | .60 |

SOLDERLESS CONNECTORS

Dossal or Penn-Union

| Size of Conductor | Up to | 3 to | No. 4 | No. 1 | No. 0 | No. 2/0 | No. 3/0 | No. 4/0 |
|---------------------|--------|--------|--------|--------|--------|---------|---------|---------|
| 2 Way S & Elbows. | \$.60 | \$.75 | \$.80 | \$1.00 | \$1.20 | \$1.40 | | |
| Cable Tape..... | .95 | 1.05 | 1.20 | 1.40 | 1.75 | 2.10 | | |
| 3 Way S & Y's..... | .95 | 1.05 | 1.20 | 1.40 | 1.75 | 2.10 | | |
| Lugs—All Types..... | .45 | .55 | .60 | .70 | .90 | 1.10 | | |

CORD & MOTOR CONNECTORS

Complete

| Arrow | No. | Price | Body Only | Cap Only | Cap Only | |
|--------------|-----------|--------|-----------|----------|----------|--------|
| | No. | Price | No. | Price | No. | Price |
| Midget Comp. | 8238 | \$.50 | ..... | ..... | ..... | ..... |
| " Arrotex | 8239 | .75 | ..... | ..... | ..... | ..... |
| Motor Comp. | RJ-8221 | .55 | 8221 | \$.45 | RF | \$.12 |
| " " | RJ-8221 | .55 | 8221 | .45 | RL | .20 |
| " " | RA-8222 | .55 | 8222 | .45 | RA | .13 |
| " " | RM-8222 | .55 | 8222 | .45 | RM | .25 |
| " " | TM-8222 | .55 | 8222 | .45 | TM | .25 |
| " " | RH-8224 | .70 | 8224 | .60 | RH | .35 |
| " " | RG-8284 | .90 | 8281 | .60 | RG | .35 |
| " " | 8334 & 35 | .90 | ..... | ..... | ..... | ..... |

Bryant

| | | | | | | |
|--------------|--------|-----|-----|-----|-----|-----|
| Motor Midget | KR-130 | .60 | 130 | .45 | KR | .20 |
| " Conn. | KG-103 | .70 | 103 | .45 | KG | .25 |
| " KT-130 | .55 | 130 | .45 | KT | .15 | |

GE

| | | | | | | |
|----------------|-----------|-----|------|-----|------|-----|
| Cord Connector | 1346-1347 | .90 | 1647 | .45 | 6146 | .50 |
|----------------|-----------|-----|------|-----|------|-----|

Hubbell

| | | | | | | |
|----------------|------|------|------|------|------|-----|
| Cord Connector | 5894 | .80 | 5574 | .55 | 5896 | .30 |
| " 6116 | .70 | 6118 | .55 | 5964 | .15 | |
| " 6179 | .75 | 6630 | .55 | 6631 | .20 | |
| " 6180 | .65 | 6630 | .55 | 6181 | .10 | |
| " 5518 | .80 | 5574 | .55 | 5420 | .25 | |
| " 7083 | 1.35 | 7084 | .85 | 7056 | .55 | |
| " 7090 | 1.50 | 7091 | 1.10 | 7092 | .75 | |
| " 6408 | 1.25 | 6400 | .85 | 6149 | .45 | |

Weber

| | | | | | | |
|----------------|------|-----|-----|-----|------|-----|
| Cord Connector | 2274 | .60 | .74 | .45 | 2200 | .20 |
|----------------|------|-----|-----|-----|------|-----|

Wirt

| | | | | | | |
|----------------|-----|-----|-------|-------|-------|-------|
| Cord Connector | .56 | .55 | | | | |
|----------------|-----|-----|-------|-------|-------|-------|

NOTE: For Attachment Plugs and other caps—See Pages PL-16 & PL-17

E-SUNDRIES

EXTENSION CORDS—MADE UP

With Plug & Socket, but Guards-Lamps & Handles Extra

| Length in Feet | With Lamp Cord and Key | With Reinforced Cord and Key | With Artificial Sill Cord and Key Socket | Twist. or Paral. | With All Rubber Cord and Weatherproof Socket |
|----------------|------------------------|------------------------------|--|------------------|--|
| No. 18 | No. 18 | No. 16 | No. 18 | No. 16 | |
| 4 Foot..... | \$.90 | \$.90 | \$.95 | \$.90 | \$.95 |
| " 6 " | .85 | 1.00 | 1.05 | 1.00 | 1.05 |
| " 8 " | .90 | 1.10 | 1.15 | 1.10 | 1.15 |
| " 10 " | .95 | 1.20 | 1.25 | 1.20 | 1.25 |
| " 12 " | 1.00 | 1.30 | 1.35 | 1.30 | 1.35 |
| " 14 " | 1.05 | 1.40 | 1.45 | 1.40 | 1.45 |
| " 16 " | 1.10 | 1.50 | 1.55 | 1.50 | 1.55 |
| " 18 " | 1.15 | 1.60 | 1.65 | 1.60 | 1.65 |
| " 20 " | 1.20 | 1.70 | 1.75 | 1.70 | 1.75 |
| " 22 " | 1.25 | 1.80 | 1.85 | 1.80 | 1.85 |
| " 24 " | 1.30 | 1.90 | 1.95 | 1.90 | 1.95 |

Length in Feet

| No. 18 | No. 16 | Light | Heavy |
|--------|--------|--------|--------|
| \$1.10 | \$1.25 | \$1.30 | \$1.40 |
| 1.30 | 1.50 | 1.60 | 1.70 |
| 1.50 | 1.75 | 1.90 | 2.00 |
| 1.70 | 2.00 | 2.20 | 2.30 |
| 1.90 | 2.25 | 2.50 | 2.60 |
| 2.10 | 2.50 | 2.80 | 2.90 |
| 2.30 | 2.75 | 3.10 | 3.20 |
| 2.50 | 3.00 | 3.40 | 3.50 |
| 2.70 | 3.25 | 3.70 | 3.80 |
| 2.90 | 3.50 | 4.00 | 4.10 |
| 3.10 | 3.75 | 4.30 | 4.40 |

ELBOWS & BENDS

For Rigid Conduit

| Size | 1/4" | 3/4" | 1" | 1 1/4" | 1 1/2" |
|------------|--------|--------|--------|--------|--------|
| Black..... | \$.15 | \$.19 | \$.28 | \$.39 | \$.52 |
| Galv..... | .17 | .22 | .32 | .43 | .58 |

| Size | 2" | 2 1/4" | 3" | 3 1/4" | 4" |
|------------|--------|--------|--------|--------|--------|
| Black..... | \$.53 | \$1.40 | \$3.70 | \$8.25 | \$9.50 |
| Galv..... | .96 | 1.60 | 4.20 | 9.25 | 10.60 |

EXPANSION SHIELDS & ANCHORS

Ackerman-Johnson—Dryvin—Star—Diamond—Cinch—
Packtite or Similar

| Size of Hole | These Prices Do Not Include Screws. | Length in Inches | Inside Diameter | Takes Screw No. | Price Each |
|--------------|-------------------------------------|------------------|-----------------|-----------------|------------|
| 1/4" | | 1/4" | 1/4" | 5-6 | \$.05 |
| " | | 1/4" to 1 1/4" | 1/4" | 5-6 | .06 |
| " | | 1 1/4" & 1 1/2" | 1/4" | 5-6 | .08 |
| " | | 1 1/2" | 1/4" | 5-6 | .08 |
| " | | 3 1/4" to 1" | 1/4" | 8-10-11 | .06 |
| " | | 1 1/4" | 1/4" | 8-10-11 | .08 |
| " | | 1 1/2" | 1/4" | 8-10-11 | .09 |
| " | | 2" | 1/4" | 8-10-11 | .11 |
| " | | 2 1/2" | 1/4" | 8-10-11 | .12 |
| " | | 3" | 1/4" | 8-10-11 | .14 |
| " | | 3 1/2" | 1/4" | 12-13-14 | .13 |
| " | | 4" | 1/4" | 12-13-14 | .13 |
| " | | Up to 1" | 1/4" | 15 to 18 | .08 |
| " | | 1 1/2" | 1/4" | 15 to 18 | .11 |
| " | | 2" | 1/4" | 15 to 18 | .14 |
| " | | To 1 1/2" | 1/4" | 15 to 18 | .11 |
| " | | 2 1/2" | 1/4" | 15 to 18 | .11 |
| " | | 3" | 1/4" | 15 to 18 | .11 |
| " | | 3 1/2" | 1/4" | 15 to 18 | .11 |
| " | | 4" | 1/4" | 15 to 18 | .11 |

LAG SCREW ANCHORS (Diamond or Similar)

| | | | | | |
|-------------------------|--------|--------|--------|--------|--------|
| Takes Lag Screw | 3/4" | 34" | 3/4" | 3/4" | 1 1/2" |
| Price Without Lag Screw | \$.14 | \$.14 | \$.17 | \$.24 | \$.36 |

| | | | | | |
|-------------------------|--------|--------|--------|--------|--------|
| Takes Lag Screw | 3/4" | 34" | 3/4" | 3/4" | 1" |
| Price Without Lag Screw | \$.42 | \$.42 | \$.62 | \$.90 | \$1.05 |

FUSES

Fittings, Conduit

THREADED CONDUIT FITTINGS

STANDARD TYPES, COVERS EXTRA
"Condulets" "Taplets" "Unilets" "Electrolets" "V. V."
"Adaptilets" Etc.

| | Form 7 | 1/2" | 3/4" | 1" | 1 1/4" | 1 1/2" |
|-----------------|--|---------|---------|---------|----------|----------|
| A | | \$.39 | \$.44 | \$.60 | \$.87 | \$ 1.12 |
| B | | .40 | .50 | .70 | 1.75 | 2.10 |
| C | | .50 | .67 | .83 | 1.32 | 1.71 |
| CO-COV | | .70 | .91 | 1.05 | 1.75 | 2.25 |
| E | | .40 | .50 | .70 | 1.12 | 1.46 |
| F | For Special Form 6 Entrance Fittings See PL-13 | | | | | |
| LB-LF-LL-LR-LBB | | .70 | 1.12 | 1.75 | 3.08 | 4.46 |
| LFB-LLB-LRB | | .56 | .63 | .91 | 1.47 | 1.96 |
| LBL-LBR-LW | | .56 | .63 | .91 | 1.47 | 1.96 |
| T All One Size | | .91 | 1.12 | 1.33 | 1.75 | 2.80 |
| TA All One Size | | .67 | .80 | 1.12 | 1.71 | 2.37 |
| TB-TL-TR | | .98 | 1.05 | 1.40 | 2.18 | 3.22 |
| U-UB | | .68 | .81 | 1.12 | 1.71 | 2.38 |
| X All One Size | | .68 | .75 | 1.10 | 1.76 | 2.35 |
| Gaskets | | .84 | 1.09 | 1.47 | 1.96 | 2.50 |
| Reducers | | .21 | .21 | .28 | .28 | .36 |
| Connectors | | .40 | .42 | .49 | 1.54 | 1.96 |
| Unions | | 1.03 | 1.19 | 1.40 | 4.90 | 6.30 |
| | Form 7 | 2" | 2 1/4" | 2" | 3 1/4" | 4" |
| A | | \$ 2.32 | \$ 4.46 | \$ 6.50 | \$ 10.60 | \$ 11.70 |
| B | | 3.65 | 5.46 | 7.30 | 9.10 | 16.65 |
| C | | 3.40 | 6.24 | 8.10 | 11.70 | 14.30 |
| CO-COV | | 4.45 | 6.75 | 10.27 | 16.38 | 17.95 |
| E | | 3.00 | 5.46 | 6.50 | 10.60 | 11.70 |
| F | For Special Form 6 Entrance Fittings See PL-13 | | | | | |
| LB-LF-LL-LR-LBB | | 7.00 | 10.66 | 13.26 | 23.53 | 32.50 |
| LFB-LLB-LRB | | 3.50 | 6.50 | 8.45 | 13.65 | 15.60 |
| LBL-LBR-LW | | 3.50 | 6.50 | 8.45 | 13.65 | 15.60 |
| T All One Size | | 3.72 | 8.52 | ..... | ..... | ..... |
| TA All One Size | | 3.58 | 6.50 | 9.75 | 14.30 | 16.90 |
| TB-TL-TR | | 3.58 | 6.50 | 9.75 | 14.30 | 16.90 |
| U-UB | | 4.20 | 7.80 | 10.15 | 16.38 | 18.75 |
| X All One Size | | 4.90 | 7.80 | 13.00 | 16.90 | 20.80 |
| Gaskets | | .35 | .52 | .52 | .65 | .65 |
| Reducers | | .70 | 1.30 | 1.76 | 2.60 | 3.58 |
| Connectors | | 3.01 | ..... | ..... | ..... | ..... |
| Unions | | 8.10 | ..... | ..... | ..... | ..... |
| | For Form 6 LB Fittings See PL-13 | | | | | |

COVERS
For Above

| | | 1/2" | 3/4" | 1" | 1 1/4" |
|-----------------------------|--------------------|--------|--------|---------|---------|
| Porcelain Covers with Holes | | \$.14 | \$.21 | \$.35 | \$.51 |
| Composition | " | .28 | .42 | .70 | 1.40 |
| " | Blank | .42 | .56 | .84 | 1.54 |
| Porcelain | For Drop Cord | .49 | .56 | ..... | ..... |
| " | Weatherproof | .22 | .35 | ..... | ..... |
| Metal Covers | Blank Sheet Steel | .12 | .16 | .33 | .45 |
| " | " Cast Iron | .21 | .31 | .49 | .70 |
| " | " with 1/4" Nipple | .28 | .35 | .59 | ..... |
| " | " 1/4" " | .33 | .40 | .54 | ..... |
| " | " 3/8" " | .35 | .42 | .56 | ..... |
| Porcelain Covers with Holes | | \$.67 | \$.84 | \$ 1.12 | \$ 1.26 |
| Composition | " | 1.55 | 1.68 | 4.46 | 6.30 |
| " | Blank | 1.68 | 2.00 | 4.46 | 6.30 |
| Porcelain | For Drop Cord | ..... | ..... | ..... | ..... |
| " | Weatherproof | ..... | ..... | ..... | ..... |
| Metal Covers | Blank Sheet Steel | .63 | .79 | 1.05 | 1.12 |
| " | " Cast Iron | .98 | 1.26 | 1.61 | 1.75 |
| " | " with 1/4" Nipple | ..... | ..... | ..... | ..... |
| " | " 1/4" " | ..... | ..... | ..... | ..... |
| " | " 3/8" " | ..... | ..... | ..... | ..... |

RECEPTACLES & ROSETTES
For Above

| | | 1/2" | 3/4" | 1" |
|--|------|--------|--------|--------|
| Plug Receptacles 10 Amp. 2 Pole 250 Watt | | \$.56 | \$.63 | \$.70 |
| " 15 " | 15 " | 2 " | 125 " | .63 |
| " 20 " | 20 " | 2 " | 250 " | .77 |
| " 10 " | 10 " | 3 " | 250 " | .84 |
| " 15 " | 15 " | 3 " | 125 " | .91 |
| " 20 " | 20 " | 3 " | 250 " | 1.12 |
| Lamp Receptacle 660 Watt with Shade Holder | | .42 | .49 | .56 |
| Cord Rosette | | .42 | .49 | .56 |

FS SERIES FOR FLUSH DEVICES
Shallow Type Without Covers, Any Make

| No. Gangs | No. Pipe Outlets | Series | 3/4" | 3/4" | 1" |
|-------------|------------------|-----------------|--------|---------|---------|
| Single Gang | One | FS-FSA | \$.91 | \$ 1.05 | \$ 1.19 |
| | Two | FSC-FSL-FSR-FSA | 1.05 | 1.26 | 1.84 |
| " " | Three | FSCA-FSSC-FSC | 1.40 | 1.75 | 2.08 |
| " " | Four | FSX-FSCD | 1.68 | 2.10 | 2.38 |
| Two Gang | One | FS-FSA | 1.68 | 1.82 | 1.96 |
| " " | Two | FSC-FSS | 1.82 | 1.96 | 2.17 |
| " " | Three | FSD | 2.03 | 2.17 | 2.31 |

FS SERIES FOR FLUSH DEVICES—Continued

| No. Gangs | No. Pipe Outlets | Series | 1/2" | 3/4" | 1" |
|---------------|------------------|---------|-------|------|------|
| 2 Gang Tandem | One | FS | 2.31 | 2.45 | 2.59 |
| " " | Two | FSC | 2.45 | 2.59 | 2.73 |
| Three Gang | One | FS-FSA | ..... | 2.52 | 2.73 |
| " " | Two | FSC | ..... | 2.66 | 2.87 |
| " " | Four | FSD | 2.73 | 3.01 | 3.32 |
| Four Gang | One | FS-FSA | ..... | 3.05 | 3.36 |
| " " | Two | FSC-FSE | ..... | 3.29 | 3.50 |
| " " | Five | FSD | 3.44 | 4.00 | 4.34 |

COVERS FOR FS FITTINGS

| Description | Single Gang | 2 Gang | 3 Gang | 4 Gang |
|--|-------------|--------|--------|--------|
| Metal Cover for Flush Push Button Tumbler or Rotary Switches | \$.21 | \$.42 | \$.63 | \$.84 |
| Metal Cast Covers Guarded for Switches | .50 | .91 | 1.40 | 1.96 |
| " Covers for Single Flush Receptacles | .35 | .70 | ..... | ..... |
| " " Duplex | .42 | .84 | ..... | ..... |
| " " Simple | .56 | 1.68 | ..... | ..... |
| " " with 1/4" Brass Nipple | .68 | ..... | ..... | ..... |
| " " For Pilot Lamp Rec. with Jewel | 1.40 | 2.20 | ..... | ..... |
| Iron Vaporproof with Operating Mechanism | 2.45 | 3.20 | ..... | ..... |
| " Brass | 3.50 | 8.05 | ..... | ..... |
| Blank Cover Sheet Steel | .14 | .28 | .56 | .84 |
| " Cast | .35 | .70 | 1.05 | 1.40 |
| Porcelain Cover with Holes | .28 | ..... | ..... | ..... |

COMBINATION COVERS FOR FS SERIES

| 2 Gang for One Switch and one Sgle. or Duplex Receptacle | \$.70 |
|--|--------|
| " " " " One lift cover Receptacle | 1.05 |
| NOTE: Although our prices on conduit fittings apply to all makes we use Crouse Hinds' numbers and lists for convenience. | |

G & H WITHOUT ADJUSTABLE BAR

| Type | Crouse Hinds or Similar | 5 Amp. | 10 Amp. |
|---------------|-------------------------|--------|---------|
| G... | | \$.56 | \$.70 |
| GL... | | .63 | 1.12 |
| GA-GLA-GT... | | .84 | .98 |
| GTA-GX-GXA... | | 1.05 | 1.19 |
| H... | | .42 | .56 |
| HA... | | .49 | .63 |
| HH... | | .56 | .77 |
| HHC... | | .84 | .98 |
| HLA... | | .63 | .77 |

G & H WITH ADJUSTABLE BAR

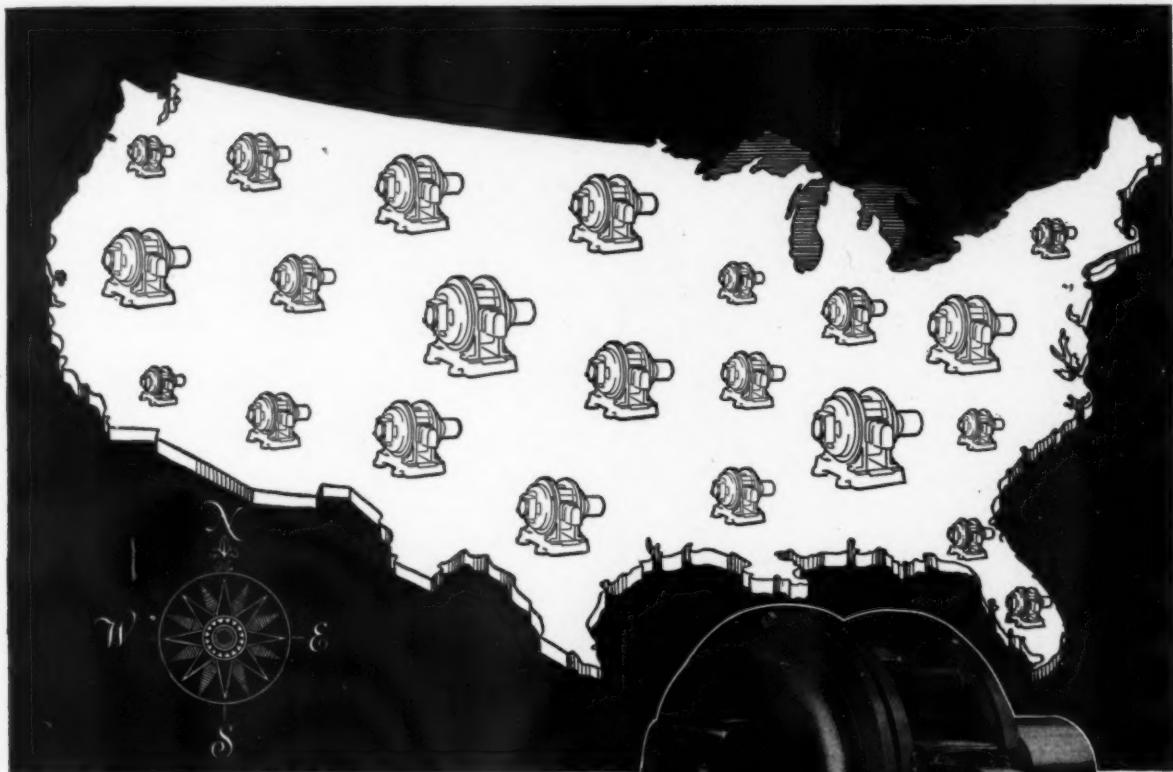
| Type | Crouse Hinds or Similar | 5 Amp. | 10 Amp. |
|--------------|-------------------------|--------|---------|
| G... | | \$.77 | \$.91 |
| GL... | | .84 | .98 |
| GA-GLA-GT... | | 1.05 | 1.19 |
| GTA-GX... | | 1.26 | 1.40 |
| GXA... | | 1.50 | 1.71 |
| H... | | .63 | .77 |
| HA... | | .70 | .84 |
| HH... | | .77 | .91 |
| HHC... | | 1.05 | 1.19 |
| HLA... | | .84 | .98 |

COVERS FOR G & H SERIES

| Description | For G & H Fittings Without Adjustable Bar | For G & H Fittings With Adjustable Bar |
|------------------------------------|---|--|
| Porcelain Cover with Wire Holes | \$.28 | \$.35 |
| Blank Sheet Steel Cover | .21 | .28 |
| " Cast | .35 | .42 |
| Sheet Steel with 1/4" Brass Nipple | .35 | .42 |
| " " " " " " | .50 | .56 |
| Receptacle Covers No Shadeholder | .70 | .70 |
| " With " | 1.12 | ..... |

DEVICES FOR G & H SERIES

| | |
|---|--------|
| Lamp Receptacles one piece with or without Shadeholder Groove | \$.35 |
| " two " | .70 |
| " " " without " | .63 |
| Cord Rosette Porcelain | .56 |
| " Composition | .76 |



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EVERY wiring job you do is a "sample" of your work . . . and by this "sample" alone do your customers decide whether they want more of your work.

The "sample" has to be satisfactory both in materials and workmanship if your customers are to come back to you. Good workmanship is important . . . but no amount of good workmanship can hide the defects of inferior materials.

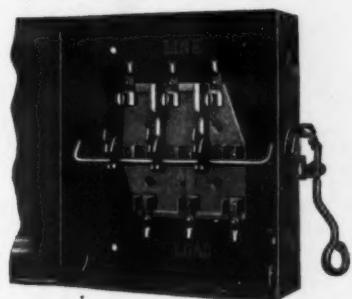
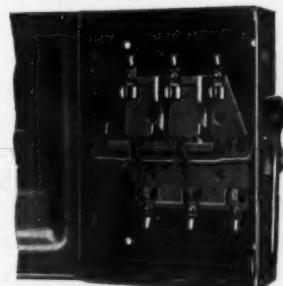


Advantages of C-H Universal Meter Service Switches
(Bulletin 4311)

First standard device offering economical protection for branch circuits. Compact switchblock combines enclosed sealed main fuse and exposed accessible branch fuses in one unit. One or two blade types for two or three wire installations. Circuit dead fuse type. Connections conveniently located.

Advantages of C-H Light Duty Entrance Switch
(Bulletin 4141)

Type C design and construction. Smaller in size, ample wiring space. Smaller switch bases. Quick break to reduce arcing and prolong life. Plug fuse or cartridge fuse type. 21 sizes, from 30 to 100 amperes, 125 and 250 volts. Low price.



Advantages of C-H Standard Duty "Type C" Switch

(Bulletin 4131)

Quick make and quick break prevent burning of contacts, give far longer life. Molded crack-proof base. Rugged construction. Small case, yet easy to wire. Removable handle to prevent tampering. Six sizes from 30 to 400 amperes, 250 and 600 volts.

Take no chances! Use safety switches and other wiring materials which you know are dependable. Cutler-Hammer Safety Switches shoulder their full share of the job of satisfying the customer. In every way, they are the product of Cutler-Hammer's long experience in designing standard and special motor control. They reflect the engineering ingenuity and skill which have made the name Cutler-Hammer known and respected throughout the electrical world.

Cutler-Hammer reputation backs these switches, assures full satisfactory performance.

The Cutler-Hammer Line is complete, has a safety switch for every need . . . can meet any price requirement . . . provide a fair basis for insisting on a fair profit for yourself. Your wholesaler can supply you. And we will supply you a catalog upon request.

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Pioneer Manufacturers of Electric Control Apparatus

1307 St. Paul Ave.

MILWAUKEE, WISCONSIN

CUTLER HAMMER

High Quality Safety Switches For Every Service

(A-376)

"Nearly every job

IN speaking of the present situation in the electrical contracting field, Mr. Clyde L. Chamblin, president of the California Electrical Construction Company of San Francisco, and for two years president of the Association of Electragists International, stressed the importance of the relationship between the builder and the electrical man.

"Our experience has proven," he said, "that architects and owners are leaning on us more every day.

"Just last month one of our oldest customers brought in a job that was supposed to be the 'last word' in engineering. We went over the plans in detail with him and when we finished, we had added an electric clock circuit and two convenience outlets for accounting machines in every room. For the past five years this customer has never allowed a job to proceed without first going over the entire layout with us.

"It is the same old story, nearly every job comes to us in an unfinished state. We always confer with the architect or owner before starting the job—give him our ideas of a modern installation—and then proceed to do the job just a little better than he expected. That's why we get *all* the work from some of our customers."

Mr. Chamblin's experience is typical of the



Mr. Clyde L. Chamblin, President of the California Electrical Construction Company. He has been actively interested in the advancement of electrical development for many years and is one of the most popular and progressive electrical contractors on the Pacific Coast.

experience of other electrical contractors who are capitalizing their experience by helping builders with their wiring problems. They find that builders always appreciate their advice on wiring layouts, for it frequently means a considerable saving, particularly if any changes would have to be made *after* the job is completed. Giving this extra service is the biggest opportunity the contractor has. This is due to the builder's lack of intimate knowledge of modern wiring requirements. Today the electrical

Mr. Chamblin was President of the Association of Electragists International 1927-1929; President of California State Association of Electrical Contractors and Dealers 1920; President San Francisco Electrical Contractor-Dealers Association 1919; also served as a Director and First Vice-President of the Society for Electrical Development.

comes to us in an unfinished state"...

How the California Electrical Construction Company Co-operates with the builder

contractor is more than a contractor—he is a specialist in wiring requirements.

Permanently good wiring requires wiring devices of permanent quality. Mr. Chamblin, like other leading contractors throughout the country, finds these devices in the complete Cutler-Hammer Line and recommends them for their dependability, their long service, and their ease of installation. There is a C-H Device for every wiring need, all backed by Cutler-Hammer's thirty years of specialized experience in the manufacture of electrical equipment. Remember the C-H trade-mark and specify C-H Products on every installation.

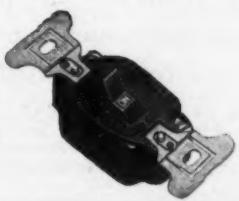
CUTLER-HAMMER, Inc.
Pioneer Manufacturers of Electrical Apparatus
 1258 St. Paul Avenue
 MILWAUKEE, WISCONSIN



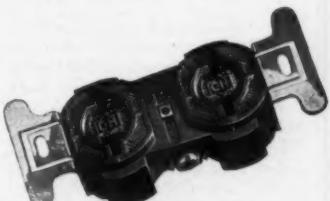
Behind the counter in the attractive store of the California Electrical Construction Co., at 639 Mission Street, San Francisco.



C-H Porcelain Sockets give you these outstanding features: Time-saving method of fastening caps by single, "off-center" assembly screw; double lugs on cap and large assembly screw prevent loosening or twisting and hold heavy reflector firmly regardless of vibration; long life mechanism and unusually good appearance. Interchangeable caps and bodies. Made in keyless, keyless, push-button and pull chain types. Approved by the Underwriters.



C-H Catalog 7281 "Rubber-Mounted" Toggle Switch. The mechanism—"full-floating" on two resilient rubber cushions—is extremely simple. No screws, and but one rivet. No metal connections to transmit sound. Short, stubby contact blades are heavy to prevent "bounce" and pitting. Heat-proof, crack-proof Thermoplast case protects mechanism from all foreign material. Single-pole, double-pole, 3-way and 4-way types. Approved by Underwriters.



C-H Catalog 7920 Duplex Receptacles (black or brown) are small and shallow—designed for easy handling and quick wiring. Parallel slots are polarized. Contacts are heavy one-piece phosphor bronze, doubled to insure firm contact at all times regardless of length of service and to prevent stubbing. (Cat. 7910 single is same construction.) Approved by the Underwriters.

CUTLER HAMMER

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ELECTRICAL CONTRACTORS
from Coast to Coast tell us that the "U.S." Rainbow Line is one of the biggest developments in Wire manufacture in many years. Here are a few of the hundreds of comments in our files:

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"I like the smooth finish on your Rainbow Wires as it reduces the strain on the wires when pulling in, especially in warm weather."

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"I used your Rainbow Line on several jobs I installed and they saved me a lot of time."

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"Your Rainbow Wires save many hours of labor and testing which means more profit for the contractor."

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"Rainbow Wires reduce the labor of connecting wires in construction work to about half the cost of the test and tag method. The greatest advantage of all is that years after the installation any wireman can tell at a glance just what circuit is faulty without disconnecting all circuits."



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*Stands the
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| | $\frac{3}{4}''$ | $\frac{1}{2}''$ | $1\frac{1}{4}''$ | $1\frac{1}{2}''$ | $2''$ | $2\frac{1}{4}''$ | $3''$ | |
|-----------|------------------|-----------------|------------------|------------------|---------|------------------|---------|--|
| Large End | \$.41 | \$.53 | \$.71 | \$.80 | \$ 1.05 | \$ 1.40 | \$ 1.55 | |
| Small End | $\frac{3}{4}''$ | .60 | .76 | .90 | 1.19 | 1.50 | 1.67 | |
| " " | $\frac{1}{2}''$ | .81 | .94 | 1.29 | 1.60 | 1.86 | | |
| " " | $1\frac{1}{4}''$ | | | 1.13 | 1.43 | 1.90 | 2.42 | |
| " " | $1\frac{1}{2}''$ | | | | 1.51 | 1.90 | 2.42 | |
| " " | $2''$ | | | | | 2.27 | 2.97 | |
| " " | $2\frac{1}{4}''$ | | | | | | 3.26 | |

FITTINGS, SPRAGULETS, WIRELETS OR T & B

BRANCH TYPE Series 48

| Description | G.E., Steel City or T & B Numbers | Price Each |
|--|--------------------------------------|---------------|
| Branch Body Rectangular for $\frac{3}{4}''$ & $\frac{3}{4}''$ Conduit... | SP-48241 | \$.25 |
| Cover Metal Flat Closed... | SP-48C1 | .10 |
| " " with $\frac{1}{2}''$ Knockout... | SP-48C6 | .10 |
| " " Pendant Type with $\frac{1}{2}''$ Bushing... | SP-48C8 | .12 |
| " " Pendant Type with $\frac{3}{4}''$ Bushing... | SP-48C11 | .16 |
| " " with $\frac{3}{4}''$ Male or Female Nipple... | SP-48C22 & 23 | .30 |
| " " with $\frac{3}{4}''$ Male or Female Nipple... | SP-48C24 & 25 | .40 |
| Cover Porcelain with one or two wire Holes... | SP-48C75 & 76 | .14 |
| " " three or four wire Holes... | SP-48C77 & 78 | .15 |

SHALLOW TYPE Series 14

| Description | G.E., Steel City or T & B Numbers | Price Each |
|--|--------------------------------------|---------------|
| Body Octagonal Shape for $\frac{3}{4}''$ or $\frac{3}{4}''$ Conduit... | SP-14241 | \$.35 |
| Cover Metal Flat Closed... | SP-14C1 | .10 |
| " " Raised with $\frac{1}{2}''$ Knockout... | SP-14C7 | .10 |
| Cover Metal Flat Pendant with $\frac{1}{2}''$ Bushing... | SP-14C8 | .12 |
| " " with $\frac{3}{4}''$ or $\frac{3}{4}''$ Male Nip... | SP-14C11 | .16 |
| " " For all surface Mounted Devices | SP-14C22-24 | .30 |
| " " Raised for Sign Receptacles | SP-14C25 | .14 |
| " " Flat for all Fluted Devices... | SP-14C31-34-35-36 | .35 |
| Porcelain with one or two holes... | SP-14C75 & 76 | .14 |
| " " Three or Four holes... | SP-14C77 & 78 | .15 |

DEEP TYPE Series 34

| Description | G.E., Steel City or T & B Numbers | Price Each |
|---|--------------------------------------|---------------|
| Body Deep Octagonal Shape $\frac{3}{4}''$ & $\frac{3}{4}''$... | SP-34461 | \$.45 |
| Cover Metal Blank Flat... | SP-34R1 | .14 |
| Cover Metal For Push Button Switch... | SP-34R2 & 3 | .14 |
| " " Single Receptacle... | SP-34R5 | .14 |
| " " Standard Duplex Receptacle... | SP-34R7 | .14 |
| " " For GE 30 Amp. Polarized Plug Recp. | SP-34R13 | .16 |
| " " GE Tumbler Switches... | SP-34R14 | .14 |
| " " Hubbell and H&H Tumbler Switches. | SP-34R15 | .18 |

COUPLINGS

| SP-1410 Complete Coupling for $\frac{1}{2}''$ Conduit... | Price |
|--|--------|
| " " " " $\frac{3}{4}''$ " " | \$.16 |
| SP-1420 " " " " $\frac{3}{4}''$ " " | .24 |

FITTINGS, ENTRANCE OR SERVICE

"ADAPTI"

| | $\frac{3}{4}''$ | $\frac{1}{2}''$ | $1''$ | $1\frac{1}{4}''$ |
|--|-----------------|-----------------|---------|------------------|
| Ent. Ells with Cov. Ser. 1100... | \$.45 | \$.50 | \$.60 | \$ 1.05 |
| " Fitt. with Cov. Ser. 2700... | .45 | .55 | .65 | 1.15 |
| Angle Ent. Fitt. with Cover Ser. 2700... | .50 | .55 | .65 | 1.20 |
| Signal Ent. Caps No. 2810-2811... | .75 | .80 | | |
| Ent. Ells with Cov. Ser. 1100... | \$ 1.50 | \$ 3.00 | \$ 6.25 | \$ 7.65 |
| " Fitt. with Cov. Ser. 2700... | 1.90 | 3.00 | 6.25 | 7.65 |
| Angle Ent. Fitt. with Cov. Ser. 2700... | 2.00 | 3.10 | 6.30 | 7.50 |
| Signal Ent. Caps No. 2810-2811... | | | | |

"APPLETON"

| | $\frac{3}{4}''$ | $\frac{1}{2}''$ | $1''$ | $1\frac{1}{4}''$ |
|---------------------------------------|-----------------|-----------------|---------|------------------|
| FEB Elbow with Cov. 1700 & 1900... | \$.50 | \$.60 | \$.70 | \$ 1.70 |
| FB Elbow with Cov. 1713 to 16... | .35 | .50 | .60 | |
| FC End Fitt. with Cov. 1723-33-43... | .20 | .25 | .30 | |
| AY Angle Fitt. 1950 to 54... | .55 | .60 | .70 | 1.95 |
| LAY End Fitt. with Cov. 1790 to 94... | .55 | .60 | .75 | 1.35 |
| FEB Elbow with Cov. 1700 & 1900... | \$ 1.90 | \$ 3.25 | \$ 7.50 | \$ 9.00 |
| FB Elbow with Cov. 1713 to 16... | | | | |
| FC End Fitt. with Cov. 1723-33-43... | 2.35 | | | |
| AY Angle Fitt. 1950 to 54... | 1.75 | | | |
| LAY End Fitt. with Cov. 1790 to 94... | | | | |

"BEND HICKS"

| | $\frac{3}{4}''$ | $\frac{1}{2}''$ | $1''$ | $1\frac{1}{4}''$ |
|----------------------------|-----------------|-----------------|---------|------------------|
| Bend Hicks Galvanized..... | \$.50 | \$.60 | \$.65 | \$ 1.75 |
| Bend Hicks Galvanized..... | 12.15 | \$ 4.10 | \$ 6.00 | \$ 8.25 |

"CAP-SWIVEL-LET"

| | $\frac{3}{4}''$ | $\frac{1}{2}''$ | $1''$ | $1\frac{1}{4}''$ | $2''$ |
|--|-----------------|-------------------------------------|----------|------------------|---------|
| "A" Inside Work #1010 to 1064... | .20 | .25 | .30 | \$ 0.55 | \$ 1.30 |
| "BW" Threadless Fitt. 4112-4134... | .45 | .50 | .75 | | |
| "FW" Outside Work 1412-1464... | .35 | .45 | | | |
| "LB" Service Entrance 3110-3130... | .40 | .50 | .65 | 1.05 | 1.80 |
| Type "AM" for Nipple $\frac{3}{4}''$ Long... | .50 | .55 | .65 | | |
| Type "BX" from 1600 to 1613... | \$ 20.20 | For Nipple $1\frac{1}{4}''$ Long... | \$ 40.25 | | |
| From 1632-1634... | | | | | |

"CONDULETS"

Form 6

| | $\frac{3}{4}''$ | $\frac{1}{2}''$ | $1''$ | $1\frac{1}{4}''$ |
|--------------------------------------|-----------------|-----------------|--------|------------------|
| F Type Ent. Fitt. with Porc. Cov... | \$.40 | \$.45 | \$.60 | \$.95 |
| LB Type Ent. Fitt. with Metal Cov... | .45 | .50 | .60 | 1.15 |
| | | | | |
| F Type Ent. Fitt. with Porc. Cov... | \$ 1.00 | \$ 2.85 | | |
| LB Type Ent. Fitt. with Metal Cov... | 1.40 | 2.45 | | |

"ELECTROLETS"

| | $\frac{3}{4}''$ | $\frac{1}{2}''$ | $1''$ | $1\frac{1}{4}''$ |
|--|-----------------|-----------------|---------|------------------|
| FB Angle Fitt. with Cov. 713-83... | \$.45 | \$.55 | \$.70 | \$ 1.10 |
| KA End Fitt. with Cov. 1013 to 43... | .20 | .25 | .35 | .30 |
| KB Elbow Fitt. with Cov. 1113 to 38... | .35 | .50 | .60 | |
| SLB Elbow Fitt. with Cov. 1 to 4... | .50 | .60 | .75 | 1.35 |
| Y Capped Elbow Y1 to 5... | .50 | .60 | .65 | 1.75 |
| | | | | |
| FB Angle Fitt. with Cov. 713-83... | \$ 1.80 | \$ 3.00 | \$ 7.00 | \$ 8.50 |
| KA End Fitt. with Cov. 1013 to 43... | | | | |
| KB Elbow Fitt. with Cov. 1113 to 38... | | | | |
| Y Capped Elbow Y1 to 5... | 2.15 | | | |

"GENERAL ELECTRIC"

| | $\frac{3}{4}''$ | $\frac{1}{2}''$ | $1''$ | $1\frac{1}{4}''$ |
|-----------------------|-----------------|-----------------|---------|------------------|
| With Covers | | | | |
| Ent. Caps Series | 1525 to 1532 | \$.40 | \$.45 | \$.60 |
| Capped Elbow Series | 1470 to 1472 | .45 | .50 | .60 |
| Capped Elbow Series | 1480 to 1484 | .50 | .55 | .65 |
| Insulets Series | 1610 to 1612 | .15 | .20 | .25 |
| Insulets Angle Series | 1640 to 1642 | .30 | .45 | .60 |
| Entrance Ells | 1490 to 1495 | .45 | .50 | .60 |
| | | | | |
| With Covers | | | | |
| Ent. Caps Series | 1525 to 1532 | \$ 1.20 | \$ 2.35 | \$ 7.00 |
| Capped Elbow Series | 1470 to 1472 | 1.00 | 1.35 | 7.25 |
| Capped Elbow Series | 1480 to 1484 | 1.20 | 1.70 | 4.15 |
| Insulets Series | 1610 to 1612 | .20 | .25 | |
| Insulets Angle Series | 1640 to 1642 | .30 | .45 | |
| Entrance Ells | 1490 to 1495 | .45 | .50 | |

GEE-VEE

| | $\frac{3}{4}''$ | $\frac{1}{2}''$ | $1''$ | $1\frac{1}{4}''$ |
|-------------------------------|-----------------|-----------------|--------|------------------|
| F Service Cap Series 6000... | \$.45 | \$.50 | \$.70 | \$ 1.00 |
| B " " 16000... | .45 | .50 | .70 | 1.75 |
| F Pipe " " 1000-1310... | .40 | .50 | .75 | .75 |
| B " " 2000 & 2100... | .40 | .45 | .65 | .75 |
| F B Universal " " 3000... | 1.00 | 1.25 | 1.65 | 2.75 |
| Weathercap " " 40122... | .55 | .65 | | |
| Service Elbow " " 19000... | .40 | .55 | .65 | 1.00 |
| A Terminal " " 10000... | .40 | .45 | .70 | 1.05 |
| Endo Terminal Series 90000... | .15 | .20 | .25 | |

"TAPLETS"

| | $\frac{3}{4}''$ | $\frac{1}{2}''$ | $1''$ | $1\frac{1}{4}''$ | $2''$ | $2\frac{1}{4}''$ | $3''$ |
|------------------------------------|-----------------|-----------------|--------|------------------|---------|------------------|---------|
| AR End Fitt. with Bushing... | \$.40 | \$.55 | \$.70 | \$.90 | \$ 1.30 | \$ 1.70 | \$ 2.30 |
| BF Angle Fitt. with Covers... | .35 | .55 | .65 | 1.20 | | | |
| FA End Fitt. with Covers... | .15 | .20 | | | | | |
| FB End Fitt. with Covers... | .30 | .45 | | | | | |
| FF Service Fitt. with Covers... | .40 | .45 | 1.00 | 1.70 | 2.05 | 6.25 | 7.65 |
| FH Service Fitt. with Covers... | .85 | 1.05 | 1.50 | 1.90 | 3.05 | 4.90 | 11.50 |
| SE Service Elbow with Covers... | .95 | 1.10 | 1.25 | 1.90 | 2.50 | 4.20 | 8.45 |
| | | | | | | | |
| T & B | | | | | | | |
| Ent. Cap 1525-32 with Cover... | \$.40 | \$.45 | \$.65 | \$ 1.00 | | | |
| Capped Elbow 1470-84 with Cover... | .50 | .60 | .70 | | | | |
| Insulets 1610-11-12 with Cover... | .15 | .20 | .25 | | | </td | |

FITTINGS, "ADAPTI"

ROUND "ADAPTI" BOXES

| Series Numbers | Style | 1"" | 3"" | 1" |
|----------------------------|---------------|---------|---------|--------|
| No. 2900 to 2903 | 1 Back Outlet | \$1.40 | \$1.48 | \$1.60 |
| No. 3000 to 3005 | 1 Side Outlet | .43 | .50 | .74 |
| No. 3100 to 3105 | " " | .40 | .48 | .60 |
| No. 3100T & 3101T Thrids. | " " | .45 | .55 | " |
| No. 3170 to 3175 | " " | .47 | .54 | .67 |
| No. 3200 to 3205 | 2 " | .48 | .54 | .74 |
| No. 3200T & 3201T Thrids. | " " | .60 | .65 | " |
| No. 3270 to 3275 | " " | .60 | .67 | .94 |
| No. 32170 to 32175 | " " | .54 | .60 | 1.00 |
| No. 3300 to 3305 | 3 " | .64 | .88 | .98 |
| No. 3300T to 3305T Thrids. | " " | .82 | .95 | " |
| No. 33170 to 33175 | " " | .71 | .88 | 1.07 |
| No. 3400 to 3405 | 4 " | .80 | 1.05 | 1.20 |
| No. 3500 to 3705 | 2 " | .54 | .60 | .75 |
| No. 3800 to 3805 | " " | .54 | .60 | .80 |
| No. 3900 to 4105 | 3 " | .80 | .98 | 1.08 |
| No. 4800 to 5005 | 4 " | .94 | 1.03 | 1.34 |

PARTS For Above Boxes

| Series No. | Description | 1"" | 3"" | 1" |
|-------------|---------------------------|---------|---------|--------|
| 500-501-502 | Base Only | \$1.27 | \$1.27 | \$1.54 |
| 500X-501X | Extension Ring | .27 | .27 | .40 |
| 501A | Base Concealed to Expd. | .67 | .67 | .67 |
| 0500 | " with Tapped Boss | .34 | .34 | " |
| 510 to 512 | Base | .40 | .40 | .80 |
| 520 to 522 | " | .27 | .27 | .52 |
| 530 | " | 1.80 | 1.80 | " |
| 540 to 542 | " | .27 | .27 | .52 |
| 30 to 35 | Metal Side Plates | .14 | .14 | .20 |
| 40 to 42 | Insulated Side Plates | .16 | .16 | .34 |
| 50 to 54 | Armd. Flex. Side Plates | .34 | .43 | .52 |
| 60 to 65 | Angle Outlet | .16 | .24 | .43 |
| 70 to 75 | Elbow Outlet | .24 | .30 | .50 |
| 90 to 93 | Connecting Outlet | .28 | .... | .34 |
| 100 & 101 | Straight for No. 500 Base | .16 | .24 | " |
| 110 to 113 | " " No. 501 " | .28 | .34 | .43 |
| 120 to 125 | " " No. 502 " | .47 | .53 | .67 |
| 130 to 135 | " " No. 503 " | 1.08 | 1.33 | 1.60 |
| 140 to 145 | " " No. 504 " | 2.67 | 3.08 | 3.48 |
| 300 & 301 | Threadless Outlet | .20 | .28 | " |
| 310 & 311 | " | .34 | .40 | " |
| Series No. | Description | 1"" | 3"" | 2" |
| 500-501-502 | Base Only | \$1.54 | \$1.08 | \$1.08 |
| 500X-501X | Extension Ring | .40 | .... | " |
| 501A | Base Concealed to Expd. | .67 | .... | " |
| 0500 | " with Tapped Boss | .... | .... | " |
| 510 to 512 | Base | .80 | 1.60 | 1.60 |
| 520 to 522 | " | .52 | 1.08 | 1.08 |
| 530 | " | .... | .... | " |
| 540 to 542 | " | .52 | 1.08 | 1.08 |
| 30 to 35 | Metal Side Plates | .20 | .38 | .38 |
| 40 to 42 | Insulated Side Plates | .34 | .67 | .67 |
| 50 to 54 | Armd. Flex. Side Plates | .57 | .... | " |
| 60 to 65 | Angie Outlet | .48 | .94 | 1.08 |
| 70 to 75 | Elbow Outlet | .55 | 1.00 | 1.14 |
| 90 to 93 | Connecting Outlet | .... | .40 | .47 |
| 100 & 101 | Straight for No. 500 Base | .... | .... | " |
| 110 to 113 | " " No. 501 " | .48 | .... | " |
| 120 to 125 | " " No. 502 " | .80 | .94 | 1.07 |
| 130 to 135 | " " No. 503 " | 1.88 | 2.14 | 2.40 |
| 140 to 145 | " " No. 504 " | 3.87 | 4.28 | 4.67 |
| 300 & 301 | Threadless Outlet | .... | .... | " |
| 310 & 311 | " | .... | .... | " |

COVERS For Round Adapti Boxes

| Numbers | Description | Price |
|---------|---|--------|
| 1 | Porcelain One Hole Cover. | \$1.18 |
| 2 | Metal For Devices. | .30 |
| 3 | Porcelain One Hole Cover. | .30 |
| 4 | Porcelain. | .22 |
| 5 & 6 | Porcelain with 1"" Male or Female Nipple. | .38 |
| 7 & 8 | " " 1"" Male or Female Nipple. | .53 |
| 9 & 10 | Malleable with 1"" Male or Female Nipple. | .30 |
| 11 & 12 | " " 1"" Male or Female Nipple. | .38 |

NOTE: For "Adapti" Entrance Fittings See Page PL-13.

"GROUNDULET" FITTINGS

Crouse Hinds—Appleton & Similar

Type GCA

| Fitting No. | GCA-12 For 1"" Conduit Without Soldering Lug. | Price |
|-------------|---|-------|
| " " -172 " | " with " " | .84 |

Type GCD

| With Angle Adjustment | 1"" One Strap 1"" Two Straps | 1" Three Straps |
|---------------------------|--------------------------------------|-----------------|
| GC-12 Fitting without Lug | \$.92 | \$1.70 |
| GC-172-22-32 with | .96 | \$2.66 |

Type GCE & GCEE

| With One Strap for 1"" Conduit. | Size of Water Pipe 1"" to 2"" 3"" to 4"" | 1"" to 6"" |
|-------------------------------------|--|--------------------|
| " Two " " | \$1.60 | \$1.82 |
| " Three " " | 3.00 | 3.45 |

Type GCE

With Threaded Plug Terminal

| | |
|--|--------|
| GCE-142 For 1"" Conduit without Lug. | \$.91 |
| GCE-242 " 1"" with Lug. | 1.05 |
| GCE-342 " 1"" with Lug. | 1.20 |

Type GC

For Open Ground Wire

| | |
|--|--------|
| GC-92 Cast Brass with No. 4 Lug & One Strap. | \$.73 |
| GC-922 " " " 00 Lug & Two Straps. | 1.45 |

GC BRASS BUSHINGS For Ground Fittings

| Size | 1"" | 3"" | 1" | 1"" | 1"" | 2" | 2"" | 3" |
|-----------------------|---------|---------|--------|---------|---------|--------|---------|--------|
| Without Screw or Lug. | \$1.10 | \$1.13 | \$2.00 | \$2.24 | \$2.31 | \$4.46 | \$4.84 | \$1.10 |
| With Screw & Lug. | .20 | .24 | .31 | .32 | .40 | .61 | .65 | 1.25 |

TERMINALS, LUGS, JUMPERS, CLAMPS, ETC.

| Brass Stud Double End Fits Groundule Bushings 1"" to 6" GC52. | Price |
|---|--------|
| Conduit End Terminal 1"" GCE1-37 1"" GC2-52 GCE3 | \$.20 |
| Grounding Strap GCD100 Per Foot. | .65 |
| Jumper Strap GC110 Each. | .25 |
| Cable GCS80 Per Foot. | .15 |
| " For Bonding Conduit 8" Long No. 808 Per Foot. | .18 |
| " " " 12" 812 " " " .63 | .63 |
| Soldering Clips for Bushings 1"" to 1"" 0.05" 2" to 6" .09 | .09 |
| " Legs GCA130 For GCA and GCD Fittings. | .06 |
| " " Brass for 1"" Conduit No. 130-20 1"" to 1"" 0.05" 2"" to 6" .30 | .30 |
| " " Copper for Bushings 1"" to 2" 0.05" 2"" to 6" .10 | .10 |
| Strap Clamp Terminal for Water Pipe 1"" to 2"" GCE-012 | 1.05 |
| " " " 1"" 1"" GCE-014 | 1.30 |
| " " Steel GC101-.35 Brass GC102 | 1.65 |
| Threaded Plug Terminals Iron GCE042-.36 Brass .082 | .72 |
| Water Meter Shunt No. GC192 | 1.00 |

FITTINGS OR BOX CONNECTORS, ARMORED CABLE

| For BX or Armored Cable | Size of K.O. Each | |
|---|--|--------|
| Standard Squeeze Connector 1"" | 1"" \$.06 | |
| Set Screw Connector 1"" | 1"" .06 | |
| Slip In Connector 1"" | 1"" .06 | |
| Duplex Connector 1"" | 1"" .18 | |
| STRAIGHT | | |
| BOX | Squeeze or | |
| CONNECTORS | Tangent Type | |
| | 1"" .55 | |
| | 2" 1.25 | |
| 90 DEGREE | Squeeze or | |
| ANGLE BOX | Tangent Type | |
| CONNECTOR | 1"" .75 | |
| | 1" 1.00 | |
| 45 DEGREE | Squeeze or | |
| ANGLE BOX | Tangent Type | |
| CONNECTOR | 1"" 1.25 | |
| PANEL BOX ADAPTOR | | |
| FOR CONVERTING ANY CONNECTOR INTO A PANEL CONNECTOR | | |
| | 1"" .35 | |
| | 2" .40 | |
| | 1" .61 | |
| | 1"" .80 | |
| | 1" 1.10 | |
| | 2" 1.66 | |
| | 3" 2.20 | |
| COUPLINGS FOR RIGID TO FLEXIBLE CONDUIT | For 1"" Conduit | |
| | .36 | |
| | .48 | |
| | .57 | |
| | .80 | |
| | 1.00 | |
| | 1.50 | |
| Bushings or Ferrules—Brass | | |
| | .02 | |
| FITTINGS FOR "OVALFLEX" ARMORED CABLE | | |
| Number | Description | Price |
| 2150-57-60-61 | Straps—Fasteners & Bushings. | \$.02 |
| 2159 | Toggle with Wire Loop. | .03 |
| 2176-2180-2154 | Set Screw Connector. | .15 |
| 2179-2181 | Special Box Connector. | .10 |
| 2155-2156 | 90 Degree Box Connector. | .81 |
| 412-413 | Connector for Ovalflex to Metal Molding. | .35 |
| 9080-S | Squeeze Connector. | .10 |

Lamp Guards

LAMP GUARDS

Loxon

| | | | |
|---|----------------|-------------------|------------|
| 1 Key with each dozen Guards—Extra Keys 10¢ each | | | |
| For Lamps | | | |
| New Mazda | Fits Socket | McGill Loxon Nos. | Price Each |
| 15-25-40 Watt | Brass or W. P. | 1420-1420A-1420B | \$0.60 |
| 50-60 Watt | Brass or W. P. | 1425-1427A-1427B | .60 |
| 100 Watt | Brass or W. P. | 1426-1428A-1428B | .60 |
| 150 Watt | Brass | 2443 | .80 |
| 200 Watt | Brass or W. P. | 2444-2446A-2446B | .85 |
| 200 Old Style | Brass | 2447 | .95 |
| 200 Old Style Weatherproof | Weatherproof | 2447A-2447B | 1.00 |
| Reflector Type—15 to 60 Watt for Brass Sockets #1400-1443 | | | \$.80 |
| Reflector Type—15 to 60 Watt for Weatherproof Sockets #1401-1444A&B | | | .90 |

Hubbell
Non-Locking Type

| | 15-25-40-60 Watt | 75 Watt |
|---|------------------|-------------|
| No. | Price | Price |
| Closed Bottom Top & Collar for Brass Socket | 5373 \$0.45 | 5578 \$0.50 |
| Open Bottom with Collar for Brass Socket | 5485 .35 | 5487 .40 |
| Open Bottom No Top or Collar for Brass Socket | 5691 .30 | 5692 .35 |
| Open for Weatherproof Socket | 5693 .30 | 5694 .35 |
| Closed Bottom Top & Collar with Reflector | 5766 .40 | ..... |
| Open Bottom No Top or Collar Mill Type | 6995-6 .35 | ..... |

HANGERS

**FOR CABLE & CONDUIT
Mineralac**

| Hangers | Conduit | Lead Covered | Price | Porcelain Bushings | Mfgs. | For RC | Price |
|---------|---------|--------------|-----------|--------------------|-------|------------|--------|
| No. | Size | Cable Size | Jap. Fin. | Giv. Fin. | No. | Cable | Price |
| 0 | 5/8" | No. 14 | \$0.07 | \$1.10 | 1 | 8-2-0 | \$1.10 |
| 1 | 1-3/4" | No. 1 to 4/0 | .08 | .11 | 2 | 3-0-4 | .12 |
| 2 | 1" | 4/0 to 300 M | .10 | .12 | 3 | 250M-450M | .13 |
| 3 | 1-1/4" | 500 to 750 M | .10 | .12 | 4 | 500M-700M | .15 |
| 4 | 1-1/2" | 800 to 1125M | .14 | .15 | 5 | 750M-1000M | .17 |
| 5 | 2" | 1500 M | .14 | .16 | 6 | 1125-2500M | .24 |
| 6 | 2-1/2" | 2000 M | .16 | .18 | | | |

ADJUSTABLE BEAM HANGERS

T & B or Similar

| Type A Clamp Including Bolts Fits Flange 2 1/2 to 7 1/2" | Price Each |
|--|------------|
| Type B & C Clamp Including Bolts Fits Flange 7 to 12" | .75 |
| Special Bolts | .10 |

Supports for above Hangers

| | 1/2" | 3/4" | 1" | 1-1/4" | 1-1/2" | 2" | 2-1/2" | 3" |
|-----------------------|--------|--------|--------|--------|--------|--------|--------|--------|
| For One Conduit Steel | \$1.13 | \$1.16 | \$1.25 | \$1.33 | \$1.40 | \$1.51 | \$1.65 | \$1.82 |
| " Two Conduit Mall. | .20 | .25 | .33 | .40 | .50 | .... | .... | .... |
| " Four Conduit Mall. | .31 | .36 | .... | .... | .... | .... | .... | .... |

NOTE: For Price of Complete Hanger add Prices of Clamp & Supports.

**HANGERS & PERFORATED BAR
Grabber**

| Perforated or Extension Bar | For 3/8 to 1-1/2" Conduit Per Foot. | Price |
|-----------------------------|-------------------------------------|-------|
| " 2 to 3" | " " | .10 |
| " 3-1/2" to 6" | " " | .12 |

Hangers

| | 1/2" | 3/4" | 1" | 1-1/4" |
|---|--------|--------|--------|--------|
| 1 Hinge Hanger with Extn. Bar & Lag Screw | \$1.18 | \$1.18 | \$1.20 | \$1.22 |
| 7 Band Hanger Extn. Bar and Beam Clamp | .22 | .22 | .23 | .26 |
| 13 Hinge Hanger, Socket and Beam Clamp | .34 | .34 | .37 | .38 |
| 200 Band Hanger Only | .10 | .10 | .12 | .13 |
| No. | 1-1/4" | 2" | 2-1/2" | 3" |
| 1 Hinge Hanger with Extn. Bar & Lag Screw | \$1.25 | \$1.27 | \$1.30 | \$1.34 |
| 7 Band Hanger Extn. Bar and Beam Clamp | .28 | .30 | .32 | .34 |
| 13 Hinge Hanger, Socket and Beam Clamp | .40 | .47 | .48 | .50 |
| 200 Band Hanger Only | .14 | .16 | .18 | .20 |

STANDARD SHADE HOLDERS

| Finished | 2-1/2" | 3-1/2" | 4" |
|--|---------|---------|---------|
| Uno 3 Screw Holder with Screw Top | \$10.10 | \$10.30 | \$10.40 |
| Uno 3 Screw Holder with Contractile Collar | .10 | .30 | .... |
| Uno Wire Spring Holder with Screw Top | .15 | .35 | .... |
| Uno Wire Spring Form H with Collar | .30 | .... | .... |
| Weatherproof 3 Screw Holders Clamp Top | .15 | .35 | .60 |

KNOBS, TUBES & CLEATS, PORCELAIN

KNOBS

| Type | With Screw | With Nail | Without Screws |
|--------------------------------|------------|-----------|----------------|
| 5/8" Split Knobs | \$0.0215 | | \$0.02 |
| 5/8" Solid Knobs | .03 | | \$0.0214 |
| 5/8" Nailit | | | |
| 5/8" Screwit | .0315 | | |
| 4 : 4 1/2" Knobs Solid | .04 | | (\$0.12) |
| No. 9410 Split 1 1/2" x 1 1/2" | | | .07 |
| 9420 Split 2 x 2 1/2" | | | .12 |
| 22 Victor Split | | | .10 |
| 6061 Solid Teleph. 2 Groove | | | .07 |
| 6062 | 4 | | .10 |

TUBES

| Diam. | 3" & under | 4" | 5" | Length | 6" | 8" | 10" | 12" | 14" | 16" |
|------------|------------|--------|---------|--------|------|------|------|------|------|-----|
| Price Each | \$0.015 | \$0.02 | \$0.025 | \$0.03 | \$10 | \$17 | \$25 | \$32 | \$40 | |
| " " | .02 | .025 | .03 | .04 | .11 | .19 | .27 | .35 | .43 | |
| " " | .04 | .05 | .06 | .07 | .13 | .21 | .30 | .38 | .47 | |
| " " | .07 | .08 | .09 | .11 | .15 | .25 | .34 | .43 | .52 | |
| " " | .10 | .12 | .13 | .15 | .18 | .29 | .39 | .49 | .59 | |

CLEATS

2 & 3 Wire

Standard No. 334 2 & 3 Wire Unglazed Cleats without Screws Per Pair \$0.04
Glazed .06

**ONE WIRE CLEATS
B & D Type—2 Piece**

| No. | Dimensions | Height | Length | Width | For Size | Wire | Price Each |
|----------|------------|--------|--------|--------|----------|-----------|------------|
| 1A | 1/2" | 1 1/2" | 1 1/2" | 1 1/2" | 14 to 6 | 6 | .07 |
| 1 1/2" A | 1/2" | 2 1/2" | 1 1/2" | 1 1/2" | 2 | 2 | .11 |
| 2A | 1/2" | 2 1/2" | 1 1/2" | 1 1/2" | 0 | 0 | .15 |
| 2 1/2" A | 1/2" | 2 1/2" | 1 1/2" | 1 1/2" | 000 | 200,000 | .17 |
| 3A | 1/2" | 3 1/2" | 1 1/2" | 1 1/2" | 000 | 200,000 | .18 |
| 3B | 1/2" | 3 1/2" | 1 1/2" | 1 1/2" | 2 | 500,000 | .20 |
| 3 1/2" B | 1/2" | 3 1/2" | 1 1/2" | 1 1/2" | 5 | 1,000,000 | .25 |
| 4B | 1/2" | 3 1/2" | 1 1/2" | 1 1/2" | 8 | 1,250,000 | .35 |
| 4 1/2" B | 1/2" | 5 | 1 1/2" | 1 1/2" | | | |

LOOM & L-SUNDRIES

| Size | 2 1/2" | 3" | 3 1/2" | 4" | 5" | 5 1/2" | 6" | 7" | 8" | 9" | 10" | 11" | 12" |
|----------------|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Price per Foot | \$0.0234 | \$0.03 | \$0.08 | \$0.11 | \$0.13 | \$0.14 | \$0.15 | \$0.17 | \$0.18 | \$0.19 | \$0.20 | \$0.21 | \$0.22 |

SOLDERING LUGS—One Hole

| For Wire | Size | Amps. | Size | Wire | Price |
|---------------|------|-------|------|---------------|--------|
| No. 10 Under | 8 | 25 | 1/8" | 8 | \$0.04 |
| 6 | 35 | 50 | 1/8" | 6 | .04 |
| 4 | 70 | 125 | 1/8" | 4 | .06 |
| 2 | 90 | 150 | 1/8" | 2 | .09 |
| 00 | 175 | 225 | 1/8" | 00 | .12 |
| 0000 | 250 | 325 | 1/8" | 0000 | .17 |
| 250 M. C. M. | 325 | 362 | 1/8" | 250 M. C. M. | .60 |
| 450 M. C. M. | 362 | 400 | 1/8" | 450 M. C. M. | .70 |
| 500 M. C. M. | 400 | 450 | 1/8" | 500 M. C. M. | .75 |
| 600 M. C. M. | 450 | 550 | 1/8" | 600 M. C. M. | .90 |
| 800 M. C. M. | 550 | 650 | 1/8" | 800 M. C. M. | 1.17 |
| 1000 M. C. M. | 650 | | | 1000 M. C. M. | |

For 2-Hole Lugs

With Regular Stud Holes Add 50% To Above Prices.

CONDUTT LOCKNUTS

| Size | Also on Page PL-8 | Price |
|--------|-------------------|--------|
| 1/2" | | \$0.01 |
| 1" | | .014 |
| 1 1/2" | | .024 |
| 2" | | .05 |
| 2 1/2" | | .08 |
| 3" | | .11 |
| 3 1/2" | | .14 |
| 4" | | .17 |

LINKS

For Chain

| Non-insulating Splicing Links—Any Make—Each | Price |
|---|-------|
| Luminous Acorns—See Page PL-4 and Page PL-18. | .15 |

MAIL BOXES

COUCH

No. 73 Tilting Mail Boxes Post Office approved per Receptacle..... \$4.15

"TILTING" Speaking Tube Type

Series 7303 to 7309 and 73010 to 73012

| No. of Boxes | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|--------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Price ea. | 16.20 | 21.60 | 27.00 | 32.30 | 37.80 | 43.20 | 48.60 | 54.00 | 59.40 | 64.80 |

SINGLE GANG Non-Tilting

No. 78 or 780 with call button or speaking tube unit..... Price each \$3.15

MOLDING, NATIONAL

MOLDING

| Number | Description | Price |
| --- | --- | --- |

<tbl_r cells="3" ix="1" maxcspan="1"

Plugs, Appliance

PLUGS, APPLIANCE

| Make | Number & Description | Price Each |
|-------------------|---|------------|
| American Beauty | 802 Plug Complete for Small Irons. | .50 |
| " | " Large Irons. | 1.35 |
| " | " Toasters & Stoves. | .25 |
| " | 807 " | 1.00 |
| Arrow | 29000 Pendant Switch Plug. | 1.00 |
| Bever. | 71 Gripall Super Type Adjust. Contacts. | .45 |
| " | " Nickel Alloy Contacts. | .55 |
| " | " Armored Case. | .55 |
| " | " Type Arm'd Case Nickel Alloy Cont. | .60 |
| " | " High Grade Bakelite. | .60 |
| " | F22 Suitzall Double Contacts. | .20 |
| " | " Single Contacts. | .15 |
| " | " Double Contacts. | .20 |
| " | " Armored Case. | .30 |
| " | " Small Plug Bakelite. | .30 |
| " | G-1 Gripall Plug Adjust. Contacts. | .90 |
| " | G-21 Push Button Type. | .45 |
| " | G-22 New Toggle Type. | .45 |
| Betsy Ross | Safeguard Automatic Heater Control Plug. | 1.50 |
| " | All Appliance Plug. | .20 |
| Bryant | 668 Plug Complete with Switch. | .90 |
| " | " Shorter than 668. | .65 |
| " | 29081 Pendant Switch Plug. | 1.00 |
| Cutler-Hammer | 7051 Plug Complete with Switch. | .75 |
| " | 7350 Pendant Switch Plug. | 1.00 |
| GE | 2602 Armored Heater Plug, Brown Compound. | .25 |
| " | 2603 Not Armored Heater Plug, Brown Compound. | .20 |
| " | 2642 " with Tumbler Sw., Brown Compound. | .50 |
| " | 2205 Pendant Switch Plug. | 1.00 |
| Hemco | 250 Heater Plug, no Switch. | .45 |
| Hemco | 250 Switch Appliance Plug. | .75 |
| Hotpoint | CDEP-1 Iron Plug. | .45 |
| " | CD69P1 " " Armored. | .60 |
| " | CD79P1 " " with Switch. | 1.00 |
| Hubbell | 7020 Appliance Switch Plug. | .75 |
| Kool-Pull (Colts) | Appliance Plug, no Switch 8037. | 1.00 |
| " | " with Switch 8039. | .75 |
| Plugall | 700 Appliance Plug with Spring. | .30 |
| " | " with Switch. | .85 |
| Proprietary | 5 One 4 All Appliance Plug, no Switch. | .30 |
| " | 55 Standard Iron Plug, " Switch. | .25 |
| " | 55 Armored " ". | .25 |
| " | 55 Iron Plug with Switch. | .55 |
| P & S | 1550 Appliance Switch or Pendant. | 1.00 |
| Red Bird | 151 Appliance Plug, No Switch. | .40 |
| Reynolite | 500 Receptacle Connector Plug, no Switch. | .50 |
| " | 510 " with Switch. | .85 |
| Rodale | P-21 Appliance Plug No Switch. | .20 |
| " | P-29 " " Armored. | .25 |
| " | 610 " " Bakelite No Switch. | .25 |
| " | 615 " " " Armored. | .35 |
| " | 850 " " With Switch. | .55 |
| " | 800 " " Armored With Switch. | .90 |
| Simplex | 890 Armored Appliance Plug, no Switch. | .75 |
| " | 900 DeLuxe Chromplate Plug. | 1.00 |
| Sunbeam | Heater Plug. | 1.50 |
| Torrid | B-060-3-4-5 Safety Control Plug. | 1.00 |
| " | B-080-3-4-5-6 Heat Control Plug. | 1.00 |
| Westinghouse | 29423 Plug Complete, no Switch. | .75 |
| " | 373656 " with Switch. | 1.00 |

PANEL BOARDS OR FUSE CABINETS

BULLDOG FUSENTERS

| No. | Description | 2 Circ. | 4 Circ. | 6 Circ. | 8 Circ. | 12 Circ. |
|--|--|---------|---------|---------|---------|----------|
| CBS | Surface Black Finish with inside shield | \$1.85 | \$2.35 | \$3.95 | \$7.10 | \$10.40 |
| BOS | Black Finish without Shield | 1.70 | 2.20 | 5.40 | 8.80 | 11.80 |
| BF | Flush Luminized Finish | 2.50 | 5.75 | 5.40 | 8.80 | 11.80 |
| BBF | Black Finish | 2.00 | 2.75 | 4.75 | ..... | ..... |
| BSF | Lum. Finish with Toggle Switches | ..... | 6.65 | 10.00 | 13.30 | 20.00 |
| BSS | Lum. Finish with one 30 A. Saftofuse | 20.60 | 22.00 | 32.00 | 35.25 | ..... |
| BSS | Lum. Finish with one 60 A. Saftofuse | 21.60 | 22.50 | 32.35 | 35.65 | ..... |
| BKF | Lum. Finish Combined Fusenter & Pull Box | ..... | 6.65 | 10.00 | 15.00 | 20.00 |
| Combinations—For Resale Prices on all other Fusenter Combinations deduct 17% from Bulldog Co.'s List Prices. | | | | | | |

All-Steel-Equip Co., FUSE CABS

| Style & No. | Description | 2 Circ. | 4 Circ. | 6 Circ. | 8 Circ. | 12 Circ. |
|--------------|-------------------------|---------|---------|---------|---------|----------|
| C-702-4-6 | Surface Small Type | \$1.75 | \$2.45 | \$3.75 | ..... | ..... |
| C-902-4-6 | Flush Small Type | 2.20 | 2.85 | 4.95 | ..... | ..... |
| Series D | Surface Type Sgl. Fuse | ..... | ..... | ..... | ..... | ..... |
| 3004 to 3074 | Not for Branch Switch | 3.20 | 5.10 | \$7.50 | \$10.10 | ..... |
| 3034 to 3094 | Not for Branch Switch | 3.75 | 5.60 | 9.00 | 12.10 | ..... |
| 4002 to 4012 | Not for Branch Switch | 3.20 | 5.10 | 10.10 | 23.00 | 36.00 |
| 4022 to 4032 | Not for Branch Switch | 3.75 | 9.00 | 12.10 | 27.00 | 45.00 |
| Series DS | Flush or Surface-Sgle. | ..... | ..... | ..... | ..... | ..... |
| 3300 & 4300 | FuseTrims for Tog. Sw. | 6.90 | 9.25 | 13.80 | 21.00 | ..... |
| 3500 & 4500 | Fuse Trims for Tog. Sw. | 6.90 | 9.25 | 21.00 | 34.50 | 70.00 |

G. E. or TRUMBULL Residence Panel Boards

| Surface or Flush Mounting | 4 Circ. | 6 Circ. | 8 Circ. | 10 Circ. | 12 Circ. | 14 Circ. |
|---------------------------|---------|---------|---------|----------|----------|----------|
| Single No. 3104 to 3212 | ..... | ..... | ..... | ..... | ..... | ..... |
| Flush Mtg. | ..... | ..... | ..... | ..... | ..... | ..... |
| Or Fusing 2906 to 2912 | 2.80 | \$4.55 | \$9.65 | \$11.25 | \$18.00 | \$15.50 |
| Surface Mtg. | ..... | ..... | ..... | ..... | ..... | ..... |
| Double No. 3404 to 3412 | ..... | ..... | ..... | ..... | ..... | ..... |
| Flush Mtg. | ..... | ..... | ..... | ..... | ..... | ..... |
| Or Fusing 2704 to 2712 | 9.10 | 12.40 | 18.15 | 23.10 | 26.40 | ..... |
| Surface Mtg. | ..... | ..... | ..... | ..... | ..... | ..... |

Electrical Contracting, April, 1930

CUTLER-HAMMER (T-V)

Fuse Panels—Surface or Flush Mounting

| Circuits | 2 Cir. | 4 Cir. | 6 Cir. | 8 Cir. | 10 Cir. | 12 Cir. |
|------------------------------------|--------|--------|--------|--------|---------|---------|
| Black Finish Series 4355 & 4356 | \$1.75 | \$2.40 | \$4.30 | ..... | ..... | ..... |
| Aluminum Finish Series 4355 & 4356 | 2.25 | 3.20 | 4.90 | ..... | ..... | ..... |
| Circuits | ..... | ..... | ..... | ..... | ..... | ..... |
| Black Finish Series 4355 & 4356 | \$7.60 | \$9.10 | \$9.30 | ..... | ..... | ..... |
| Aluminum Finish Series 4355 & 4356 | 7.95 | 10.00 | 10.70 | ..... | ..... | ..... |

SQUARE D Fuse Cabinets

| | 2 | 4 | 6 | 8 | 10 | 12 |
|--|--------|--------|--------|--------|--------|---------|
| Series 37000 to 39000 | Circ. | Circ. | Circ. | Circ. | Circ. | Circ. |
| Flush Series 37000 Black | \$1.85 | \$2.50 | \$4.50 | \$7.90 | \$9.50 | \$11.15 |
| " " 37000 Aluminum | 2.35 | 3.35 | 5.10 | 8.30 | 10.00 | 11.15 |
| Surface Series 39000 Black | 1.85 | 2.50 | 4.50 | 7.90 | 9.50 | 11.15 |
| NOTE: 2 & 4 Circuit Flush Type are also available with channels for Lath Ends for mounting direct to front side of studding. For these cabinets add to Resale Price each . | ..... | ..... | ..... | ..... | ..... | ..... |
| | | | | | | |
| | | | | | | |

WADSWORTH Dead Front Fuse Cabinets

| | 2 | 4 | 6 | 8 | 10 | 12 |
|----------------------------|--------|--------|--------|--------|--------|---------|
| Surface Mtg. Single Fusing | \$2.30 | \$3.00 | \$4.85 | \$5.75 | \$7.55 | \$11.55 |
| Flush Mtg.—Single Fusing | 2.85 | 3.80 | 5.10 | 7.55 | 10.20 | 12.00 |
| Flush Type for Tyle Sw. | 6.85 | 11.10 | 13.75 | 16.40 | 19.85 | ..... |

WESTINGHOUSE Junior Residence Type

| | 2 | 4 | 6 | 8 | 10 | 12 |
|--|--------|--------|--------|--------|--------|--------|
| Galvanized or Gray Box | Circ. | Circ. | Circ. | Circ. | Circ. | Circ. |
| Junior Residence Panels | ..... | ..... | ..... | ..... | ..... | ..... |
| No. K-64012-21 & 64052-61 | \$1.65 | \$2.50 | \$4.50 | \$6.60 | \$7.85 | \$9.90 |
| Junior Branch Fuse Attach | ..... | ..... | ..... | ..... | ..... | ..... |
| No. K-62398 & 62399 | 1.75 | 2.55 | ..... | ..... | ..... | ..... |
| Junior Building Panels for Toggle Switches | ..... | ..... | ..... | ..... | ..... | ..... |
| No. K-64034-42 & 64074-81 | ..... | 6.60 | 9.90 | 13.20 | 16.50 | 19.80 |

DIAMOND PANELETTES

| | Surface Type | | Flush Type | | | |
|------|--------------|-----------------|------------|------|-----------------|--------|
| No. | Circuits | Size | Price | No. | Size | Price |
| B-1 | 4 | 7x7 x2 | \$2.15 | F-4 | 8x10 1/2 x3 1/2 | \$3.50 |
| B-2 | 4 | 8x10 1/2 x3 1/2 | 2.50 | F-6 | 8x12 x3 1/2 | 4.45 |
| S-4 | 4 | 8x12 x3 1/2 | 2.50 | F-8 | 8x13 1/2 x3 1/2 | 8.25 |
| S-6 | 6 | 8x12 x3 1/2 | 3.50 | F-10 | 8x15 x3 1/2 | 9.75 |
| S-8 | 8 | 8x13 1/2 x3 1/2 | 6.85 | F-12 | 10x15 x3 1/2 | 11.15 |
| S-10 | 10 | 8x15 1/2 x3 1/2 | 7.40 | F-14 | 10x18 x3 1/2 | 11.15 |
| S-12 | 12 | 10x18 x3 1/2 | 9.90 | | | |

P-Toggle Flush Type

| No. of Circuits | 4 | 6 | 8 | 10 | 12 |
|-----------------|--------|--------|---------|---------|---------|
| Cat. Number | FS-4 | FS-6 | FS-8 | FS-10 | FS-12 |
| Price | \$6.60 | \$9.90 | \$14.85 | \$17.30 | \$19.80 |

P-SUNDRIES

RUNNING THREAD, PIPE

| Price per Foot | 3/8" | 1/2" | 5/8" | 3/4" | 7/8" |
|----------------|--------|--------|--------|--------|--------|
| | \$2.25 | \$3.30 | \$3.35 | \$4.45 | \$5.45 |

SOLDERING PASTE

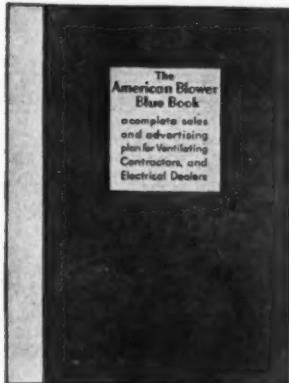
(Also on Page PL-25.)

| Make | 2 Oz. Cans | 2 Oz. Tubes | 4 Oz. Cans | 4 Oz. Tubes | Half Pound Cans | One Pound Cans |
|----------|------------|-------------|------------|-------------|-----------------|----------------|
| Allen | \$2.25 | \$4.40 | \$5.50 | \$9.00 | \$1.50 | \$1.50 |
| Burley | 20 | ..... | .30 | ..... | .40 | .70 |
| Crescent | 25 | ..... | .40 | ..... | .65 | 1.00 |
| G. E. | 25 | ..... | ..... | ..... | .90 | 1.50 |
| Highland | 45 | ..... | ..... | ..... | .90 | 1.50 |
| Nokorode | 25 | ..... | ..... | ..... | .90 | 1.50 |
| Star | 25 | ..... | .40 | ..... | .65 | 1.00 |

PAINT & VARNISH

| Make | Per Pint | Per Quart | Per Half Gallon | Per Gallon |
|----------------------------------|----------|-----------|-----------------|------------|
| Armalac Insulating Compound | \$0.50 | \$0.75 | \$1.25 | \$2.50 |
| Ajax Varnish No. 25 | 40 | 65 | 1.00 | 2.00 |
| Enamelac Insulating Varnish | .40 | .70 | 1.25 | 2.25 |
| G. E. Black Baking or Air Drying | .50 | .75 | 1.25 | 2.25 |
| G. E. Clear Baking or Air Drying | .50 | .75 | 1.25 | 2.50 |
| Mineralic Insulating Compound | .40 | .75 | 1.50 | 3.00 |
| P. & B. No. 2 Paint | .40 | .75 | 1.50 | 3.00 |
| Pothead Compound, per Pound | ..... | ..... | ..... | .55 |

How far would they get... Without a plan?



Send for the American Blower Sales and Advertising Plan Book for Your Business . . .

EVERY business needs a plan. Many manufacturers spend hundreds of thousands of dollars annually for the successful planning of their business—but how about the dealer? The American Blower Corporation offers Sheet Metal, Electrical and Ventilating Contractors a complete selling and advertising plan, designed to build profit and increase business. It is complete in every detail. Outlines the most productive fields for selling electric

ventilating equipment. Contains technical data, installation information, samples of direct-by-mail literature, counter cards, window displays and everything necessary to build a successful business in the sale of electric ventilating equipment. A copy of this book will be sent you free and without obligation upon receipt of the coupon. Mail it today. See for yourself the material contained in this Sales and Advertising Plan for dealers.

American Blower
VENTILATING, HEATING, AIR CONDITIONING, DRYING, MECHANICAL DRAFT
MANUFACTURERS OF ALL TYPES OF AIR HANDLING EQUIPMENT SINCE 1891

C O U P O N

AMERICAN BLOWER CORPORATION, 6000 Russell Street, Detroit, Mich.

I am interested in having a plan for my ventilating business. Please send me a copy of your Blue Book.

Name _____

Firm Name _____

Street # Number _____

City _____

State _____

(60)



Look around your town—to-night!

AT NIGHT, great buildings and small business enterprises alike lose their commercial appeal—except where progressive merchants use floodlights to turn the curtain of darkness into a background instead of a shroud.

Look around your town to-night. Count the structures that can profitably be advertised with light—banks, department stores, office buildings, filling stations, factories, to mention only a few. It may be a smokestack or five stories of front wall; a billboard or a parking area; in every case it's an opportunity to sell the idea of floodlighting as remunerative publicity.

And more is to be sold than just an idea. There's substantial profit in projectors and in the incidentals of installation—cable, wiring devices, lamps, and replacements. This

sales field has attracted electrical contractors all over the country. In fact, about fifty per cent of floodlighting jobs are developed and engineered—and the materials selected and sold—by them.

You have the advantage of close contact with your community; you have full knowledge of its commercial possibilities. Add to this asset the services of the General Electric illuminating engineering laboratory and of G-E floodlighting specialists, who are ready to assist you in planning installations and choosing material. What better foundation could you have for an active and successful promotion of floodlighting sales?

For further information or special advice, address the nearest G-E sales office or General Electric Company, Schenectady, N. Y.

GENERAL ELECTRIC
SALES AND ENGINEERING SERVICE IN PRINCIPAL CITIES

710-77



someone
needs
this
house

NON-METALLIC

- help reclaim it by rewiring with Non-Metallic Sheathed Cable

There are hundreds or thousands of these houses in your community. Houses built fifteen or twenty years ago—in what, at that time, was the "best" residential section.

Now, they are in the "near-in" section—convenient—fine old trees—usually the paving and sewer taxes have been paid up—in fact, desirable in many ways. But—the houses are antique according to modern standards. They would rent eas-

ier with adequate wiring...Here's a fertile field for enterprising contractors. "Zoning" laws in most cities are protecting these sections from further depreciation and making remodeling a safe investment.

Get these jobs with Non-Metallic Sheathed Cable!

You can guarantee a safe, neat, speedy job with Non-Metallic Sheathed Cable. And you can guarantee yourself more profit.

For further information, write to any of the Licensed Manufacturers listed below, for the booklet—"Where and How to Use Non-Metallic Sheathed Cable"

American Circular Loom Company
Anaconda Wire and Cable Company
Collyer Insulated Wire Company
Eastern Tube and Tool Company
General Electric Company
National Metal Molding Division
National Electric Products Corporation
Rome Wire Company
[Division of General Cable Corporation]
The Wiremold Company
Triangle Conduit Company, Inc.

The above Manufacturers are Licensed under Non-metallic Sheathed Cable Patents number 1439323; 1520680; 1203788; 1673752.

SHEATHED CABLE



that needs no shock absorber

THE improved mechanism of Stanley-Ajax Electric Hammers delivers powerful blows to the cutting tool without shock to the motor, the housing, or the operator. This is an important feature which is appreciated by users.

Their light weight and well balanced construction permits them to be operated in any position without "breaking the user's back."

Particularly useful for drilling in concrete, brick and stone; drilling through walls, floors, and foundations; chipping for electrical fixtures, pipes and joists; chiseling steel and wood; vibrating castings and forms, and many other similar jobs.

Equipped throughout with ball bearings. All parts of the mechanism are made of special alloy steels to insure durability.

Send for full information on these labor saving tools.

THE STANLEY ELECTRIC TOOL CO.
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Sales Offices and Service Stations
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STANLEY ELECTRIC TOOLS



YOUR Electrical Installation

is

... a BUSINESS reference

EVERY wiring installation you make, whether it be in a home, a large building or an industrial plant, is a test of your ability to handle future jobs. The quality of the materials you use determines to a great extent the degree of pride with which you can point to any group of installations for reference as to your ability.

Safety Switches are a small but important part of electrical installations. They are equipment your critics see.

Westinghouse invests millions yearly in research, engineering and advertising so that when a Westinghouse Safety Switch is seen, the impression created is, that this contractor must do high class wiring because Westinghouse Switches are used here.

You can obtain a Westinghouse Switch, correctly designed and reasonably priced, for any application. Use Westinghouse and forge another link in the prestige building chain that leads to bigger, better wiring jobs.



WK-66 Safety Switch, 60 amperes, 3-poles,
230 volts a-c. Quick-make and Quick-break.
Equipped with the Diamond Pointed Jaw and
an Interlocking Door.

Service, prompt and efficient, by a coast-to-coast chain of well-equipped shops

Westinghouse



THEY KEEP A-RUNNING



1/6 Horse Power Century Type RS Repulsion Start Induction Single Phase Motor

RUBBER MOUNTED

This mounting combines the advantages of both spring and rubber mountings. It meets the requirements of electric refrigerator, oil burner and other installations where vibration and disturbances must be kept at a minimum . . . This advanced construction is merely another evidence that Century engineers are always anticipating future requirements and constantly utilizing every proven manufacturing process to make good motors better.

The fact that the majority of household electric refrigerators, installed and operating for three years or more, are Century-equipped, is another evidence that Century Motors "Keep a-Running" under the most exacting service conditions. They have met, and in many cases exceeded, the requirements of industry.

CENTURY ELECTRIC COMPANY
1806 PINE ST. • ST. LOUIS, MO.

40 U. S. and Canadian Stock Points and More Than 75 Outside Thereof

SINGLE PHASE,
THREE PHASE,
AND DIRECT
CURRENT MOTORS

Century
MOTORS

MOTOR GENER-
ATOR SETS, ROTARY
CONVERTORS, FANS
AND VENTILATORS

FOR MORE THAN 26 YEARS AT ST. LOUIS



For three long hours he staved off the Comanches with his Colt

The famous Captain Jack Hayes did this at Enchanted Rock, Texas, in 1841. Cut off by the savage Comanches he held them off, thanks to his trusty Colt, until his men finally reached him. Only his Colt stood between him and death—the Colt did not fail him.

What stories have been written about the old West! What a wealth of romance clings to those days of pioneering when the protection afforded by Colts blazed new trails along which civilization and progress followed.

And truth is stronger than fiction, as many a hardy scout could tell who owed his life to a brace of Colts.

Matchless mechanical precision made the Colt what it was and is today. This mechanical precision is now making the Noark line of safety switches and meter protective devices—for Noark is a Colt product, made in the great plants founded by Col. Samuel Colt.

Men trained the Colt way to achieve watch-like precision, mechanical equipment and rare engineering genius have been for seven years manufacturing Noark protective devices. To all that Noark stands for has been added the manufacturing facilities of Colt plus an ideal of protective service that guarantees a finer product.

COLT
NOARK

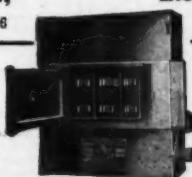
COLT'S PATENT FIRE ARMS MFG. CO.,
Established 1836

NOARK QUADBREAK SWITCHES

Immediate and hearty acceptance is a vote of confidence that has been extended by the industry to every new product that has been announced by Colt. And now the new Quadbreak Type Safety switch is winning favor

Electrical Division, HARTFORD, CONN., U.S.A.

Electrical Division 1886



ARE ALSO UNFAILING

everywhere. Have you seen it? Send for catalog "G" and detailed description. The "Rampant Colt," an interesting publication, will be mailed on request.

Sign Receptacles

PL-19

Sockets, Heavy Duty

SIGN RECEPTACLES Edison Base

| | Price |
|--------------------------------------|--------|
| Shallow Porcelain Screw Terminals. | \$.30 |
| " " Concealed Cap. | .35 |
| " " with 6" Lead Wires. | .40 |
| " " with Shade Holder Groove. | .40 |
| " " One Piece Screw Terminal. | .20 |
| Deep Porcelain with Screw Terminals. | .30 |
| " " Concealed Cap. | .45 |
| " " with 6" Lead Wires. | .40 |
| Intermediate Base | |
| Cleat Receptacle. | \$.30 |
| " " 2 Screw. | .30 |
| " " with Spring Stud. | .30 |
| " " Removable Ring. | .30 |

R-SUNDRIES

STANDARD ROSETTES—Porcelain

| | Price |
|--|--------|
| Cleat—1 Piece Junior Fusible Rosette. | \$.15 |
| " 2 " Fusible. | .20 |
| Concealed—2 Piece Concealed Fusible Rosette. | .20 |
| " 2 " Fusible. | .35 |
| " 2 " For Wood Moulding—Fusible. | .20 |
| " 2 " Fusible. | .35 |
| Box Type—1 Piece Rosette or Box Cover Fusible. | \$.20 |
| " 1 " with Brass Terminals. | .40 |
| " " Brass Covered for Boxes. | .40 |
| For Special Conduit Rosettes—See Pages PL-10, 11 and 12. | 1.20 |

GROUND RODS

| Copperweld | Galvanized Not Wired | Galvanized Wired |
|------------|-------------------------|---------------------|
| Size | Price | Price |
| Foot. | \$.65 | \$.65 |
| " | .75 | .40 |
| " | 1.40 | .55 |
| " | 1.65 | .60 |
| " | 2.10 | .75 |
| " | 2.60 | .... |
| " | 2.05 | .... |
| " | 2.40 | .90 |
| " | 2.15 | 1.15 |
| " | 2.85 | .... |
| " | 2.80 | .... |
| " | 4.40 | .... |
| " | 5.35 | .... |

RAWLPLUGS—Standard Types

| Number of Rawlplug | Drill Hole | For Screw No. | Price Each | Any Length |
|--------------------|------------|---------------|------------|------------|
| 6. | 16 | 6-7 | \$.02 | |
| 8. | 16 | 8-9 | .03 | |
| 10. | 16 | 10-11 | .04 | |
| 12. | 16 | 12 | .05 | |
| 14. | 16 | 14 | .06 | |
| 16. | 16 | 16-18 | .08 | |
| 20. | 22 | 20-22 | .12 | |

Rawlplugs for Lag Screws

| Size of Lag Screw | Size of Drill Hole | Size of Rawlplug | Price Each | Length |
|-------------------|--------------------|------------------|------------|--------|
| 1/4" | 1/4" | 1/4" | \$ 1.13 | 8-15 |
| " | " | " | .14 | 17-20 |
| " | " | " | .20 | 23-26 |
| " | " | " | .27 | 30 |

NOTE: For Expansion Shields—See Page PL-10.

SOCKETS

COMPLETE STANDARD SOCKETS

| Complete With | Pend. | 1/4 | 3/8 | 1/2 | 3/4 | 5/8 | 7/8 | 1 | 1 1/8 | Pend. | Brass | Brass | Brass | Brass | Ang. | Ang. | Ang. | Ang. | Cord | Grip |
|---------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------------------------|-------------|-------|-------|-------|------|------|------|------|------|------|
| Key | \$.25 | \$.25 | \$.35 | \$.45 | \$.50 | \$.55 | \$.60 | \$.65 | \$.70 | Keyless | Standard | Brass | Brass | Brass | Ang. | Ang. | Ang. | Ang. | | |
| Keyless | .28 | .23 | .30 | .40 | .47 | .52 | .57 | .62 | .67 | Pull | Standard | Brass | Brass | Brass | Ang. | Ang. | Ang. | Ang. | | |
| Pull | .35 | .35 | .45 | .55 | .60 | .65 | .70 | .75 | .80 | Push | Standard | Brass | Brass | Brass | Ang. | Ang. | Ang. | Ang. | | |
| Push | .30 | .30 | .40 | .50 | .60 | .60 | .65 | .65 | .65 | Electrolier Brass Shell | Standard | Brass | Brass | Brass | Ang. | Ang. | Ang. | Ang. | | |
| Key | .30 | .30 | .40 | .50 | .55 | .60 | .65 | .65 | .65 | Keyless | Electrolier | Brass | Brass | Brass | Ang. | Ang. | Ang. | Ang. | | |
| Keyless | .35 | .25 | .35 | .45 | .50 | .55 | .60 | .65 | .70 | Pull | Electrolier | Brass | Brass | Brass | Ang. | Ang. | Ang. | Ang. | | |
| Pull | .40 | .40 | .50 | .60 | .65 | .70 | .75 | .75 | .75 | Push | Electrolier | Brass | Brass | Brass | Ang. | Ang. | Ang. | Ang. | | |
| Push | .35 | .30 | .40 | .50 | .55 | .60 | .65 | .65 | .65 | Leverlock Pull | Standard | Brass | Brass | Brass | Ang. | Ang. | Ang. | Ang. | | |
| Pull | .50 | .50 | .60 | .... | .... | .... | .... | .... | .... | Threaded Catch | Standard | Brass | Brass | Brass | Ang. | Ang. | Ang. | Ang. | | |
| Key | .45 | .45 | .55 | .... | .... | .... | .... | .... | .... | Keyless | Standard | Brass | Brass | Brass | Ang. | Ang. | Ang. | Ang. | | |
| Keyless | .40 | .40 | .50 | .... | .... | .... | .... | .... | .... | Pull | Standard | Brass | Brass | Brass | Ang. | Ang. | Ang. | Ang. | | |
| Pull | .60 | .60 | .70 | .... | .... | .... | .... | .... | .... | Push | Standard | Brass | Brass | Brass | Ang. | Ang. | Ang. | Ang. | | |
| Push | .60 | .60 | .70 | .... | .... | .... | .... | .... | .... | Cold Molded | Standard | Brass | Brass | Brass | Ang. | Ang. | Ang. | Ang. | | |
| Key | .50 | .65 | .70 | .... | .... | .... | .... | .... | .... | Keyless | Standard | Brass | Brass | Brass | Ang. | Ang. | Ang. | Ang. | | |
| Keyless | .45 | .60 | .65 | .... | .... | .... | .... | .... | .... | Pull | Standard | Brass | Brass | Brass | Ang. | Ang. | Ang. | Ang. | | |
| Pull | .65 | .65 | .70 | .... | .... | .... | .... | .... | .... | Push | Standard | Brass | Brass | Brass | Ang. | Ang. | Ang. | Ang. | | |
| Push | .65 | .65 | .70 | .... | .... | .... | .... | .... | .... | All Porcelain Sockets | Standard | Brass | Brass | Brass | Ang. | Ang. | Ang. | Ang. | | |
| Key | .45 | .65 | .70 | .... | .... | .... | .... | .... | .... | Keyless | Standard | Brass | Brass | Brass | Ang. | Ang. | Ang. | Ang. | | |
| Keyless | .50 | .60 | .65 | .... | .... | .... | .... | .... | .... | Pull | Standard | Brass | Brass | Brass | Ang. | Ang. | Ang. | Ang. | | |
| Pull | .60 | .60 | .65 | .... | .... | .... | .... | .... | .... | Push | Standard | Brass | Brass | Brass | Ang. | Ang. | Ang. | Ang. | | |
| Push | .65 | .65 | .70 | .... | .... | .... | .... | .... | .... | Lock Type Brass Shell | Standard | Brass | Brass | Brass | Ang. | Ang. | Ang. | Ang. | | |
| Key | 1.00 | 1.00 | 1.10 | 1.20 | 1.25 | 1.30 | 1.35 | 1.35 | 1.25 | Keyless | Standard | Brass | Brass | Brass | Ang. | Ang. | Ang. | Ang. | | |
| Keyless | .95 | .95 | 1.05 | 1.15 | 1.20 | 1.25 | 1.30 | 1.30 | 1.20 | Pull | Standard | Brass | Brass | Brass | Ang. | Ang. | Ang. | Ang. | | |
| Pull | 1.25 | 1.25 | 1.35 | 1.45 | 1.50 | 1.55 | 1.60 | 1.50 | 1.50 | Push | Standard | Brass | Brass | Brass | Ang. | Ang. | Ang. | Ang. | | |
| Push | 1.00 | 1.00 | 1.10 | 1.20 | 1.25 | 1.30 | 1.35 | 1.35 | 1.25 | Lock Type Brass Shell | Standard | Brass | Brass | Brass | Ang. | Ang. | Ang. | Ang. | | |

CAPS For Above Sockets

| Standard Brass Cap | Pend. | 1/4 | 3/8 | 1/2 | 3/4 | 5/8 | 7/8 | 1 | 1 1/8 | Pend. | Brass | Brass | Brass | Brass | Angle | Angle | Angle | Angle | Cord | Grip |
|--------------------|-------|------|------|------|------|------|------|------|-------|----------------|----------|-------|-------|-------|-------|-------|-------|-------|------|------|
| Electrolier | .10 | .10 | .20 | .30 | .... | .... | .... | .... | .... | Brass Threaded | Standard | Brass | Brass | Brass | Angle | Angle | Angle | Angle | .... |  |
| Brass Threaded | .... | .... | .... | .... | .... | .... | .... | .... | .... | Cold Molded | Standard | Brass | Brass | Brass | Angle | Angle | Angle | Angle | .... |  |
| Cold Molded | .... | .... | .... | .... | .... | .... | .... | .... | .... | All Porcelain | Standard | Brass | Brass | Brass | Angle | Angle | Angle | Angle | .... |  |
| All Porcelain | .... | .... | .... | .... | .... | .... | .... | .... | .... | Shadeholder | Standard | Brass | Brass | Brass | Angle | Angle | Angle | Angle | .... |  |

Electrical Contracting, April, 1930

COMPLETE STANDARD SOCKETS (Continued) BODIES For Above Sockets

| Key | Keyless | Pull | Push | Thru |
|---------------------------------------|---------|--------|--------|--------|
| Standard Brass Shell Body Only. | \$.20 | \$.17 | \$.20 | \$.25 |
| Standard Electrolier Shell Body Only. | .22 | .20 | .23 | .25 |
| Brass Shell Threaded Catch Body. | .40 | .35 | .55 | .... |
| Cold Molded Composition Body. | .40 | .35 | .... | .... |
| All Porcelain Body Only. | .40 | .35 | .50 | .55 |
| Lock Type Brass Shell Body Only. | .95 | .90 | 1.20 | .95 |

BASES FOR SOCKETS

| BASES ONLY For Brass and Porcelain Sockets | | | Price |
|--|--------|--|-------|
| Cleat Base For Open Wiring. | \$.40 | | |
| Concl. Base for Concl. Wiring—Small. | .... |  |  |
| Brass Cov. Base Concl. Wiring—Small. | .... |  |  |
| Brass Covered Base for 3/4" Box. | .... |  |  |
| Brass Covered Base for 4" Box. | .... |  |  |
| Angle Conceded Base. | .... |  |  |
| All Porcelain Cleat Base. | .... |  |  |
| All Porcelain Conceded Large. | .... |  |  |
| All Porcelain For 3/4" Box. | .... |  |  |
| All Porcelain For 4" Box. | .... |  |  |

BRASS BAYONET SOCKETS

| Sometimes Called Wall Sockets or Receptacles | | | Price |
|---|------------|--------|-------|
| Keyless Brass Shell with Small Conc. or Slotted Base. | 50717 & 18 | \$.40 | |
| " " Covered Base. | 60019 | .65 | |
| " " Large Base. | 60020 | .90 | |
| Key " Small Covered Base. | 9184 | .65 | |
| " " Covered. | 60018 | .65 | |
| " " with Removable Ring. | 50746 & 7 | .65 | |

BRASS TWIN SOCKETS or Current Taps

| BASES | Price |
|---|--------|
| Pull Chain Screw Cap Side T Slot. | \$1.35 |
| Pull Chain 1/4 Cap Side T Slot. | 1.10 |
| Pull Chain Screw Cap Adaptor Not T. Slot. | 1.10 |
| Pull Chain 1/4 Cap Twin Socket. | 1.75 |
| Keyless 1/4 Cap Side T Slot. | .75 |
| Key 1/4 Cap Side T Slot. | .80 |

WEATHERPROOF SOCKETS

| Composition Mica or Porcelain with Leads. | Price |
|---|-------|
| .... | .25 |

CANDLE SOCKETS

| STAND. BASE | Price |
|--|--------|
| Keyless Brass Candle with Rigid or Adjust. Hickey. | \$.25 |
| " Push Candle Socket with Rigid or Adjust. Hickey. | .65 |
| " Pull Candle Socket with Rigid or Adjust. Hickey. | .60 |

Sockets, Heavy Duty

Switches, Pull Cord

| HEAVY DUTY SOCKETS—Benjamin | | | |
|---|---|-----------|--------|
| Benux Keyless Socket with Clamp Ring #4700 to 4703 Medium Base..... | | | \$1.25 |
| without | 4712 to 4715 | Base..... | 1.10 |
| with | 4706 to 4709 | Base..... | 2.00 |
| Benco Keyless Socket Copper or Alum. #4200-1-4-5 & 4335 & 7..... | | Base..... | .80 |
| Brass #4202-4203-4336..... | | Base..... | .90 |
| Pull | 4207-8 4225-28 4236-37 Brass, Copper or Alum..... | Base..... | 1.55 |
| Mogul | Copper Clad #4210-4297..... | Base..... | 2.25 |
| Benco Threaded Holders Only | 234 | 334 | 4" |
| Polish. Alum. Wethprf—#4215 & 4217..... | \$1.35 | \$1.60 | |
| Copper | 4370-72 & 73..... | 60 | \$1.00 |
| Brushed Brass | 4377-79 & 80..... | 60 | 1.00 |

| BENJAMIN MOGUL SOCKETS | | | |
|--------------------------------------|---------|--------|--------|
| With | Without | With | With |
| Yoke | Iron | Alum. | Alum. |
| \$1.00 | \$1.15 | \$1.50 | \$1.50 |
| One Piece Socket with Lamp Grip..... | 1.20 | 1.45 | 1.70 |

| BENJAMIN REFLECTOR SOCKETS | | | |
|--|--|--------|--|
| Porcelain or Similar With Type X or XR Fitting | | | |
| Medium Base Keyless Tapped 3/8-16-3/4 No. 4650-51 & 65..... | | \$1.20 | |
| " " " Self-Locking 3/8-16-3/4 No. 4528-29-30-32-33..... | | 1.60 | |
| " " " Shock Absorb. 3/8-16-3/4 No. 4676-77-78-80-81..... | | 1.45 | |
| " " " Shock Absorb. Self Lock No. 4548-49-50-52-53..... | | 2.00 | |
| " " " Pull Chain No. 4534-35 & 4680-61-67..... | | 2.10 | |
| Mogul Base Keyless Shock Absorbing No. 4670-71-72..... | | 2.00 | |
| " " " Not Shock Absorbing No. 4656-57 4666..... | | 1.65 | |
| If X or XR Fitting not supplied on above sockets deduct..... | | 45 | |

SWITCHES, FLUSH TUMBLER

| Plates & Boxes Extra | | | |
|--|--|--------|--|
| Square Handle Porcelain Cup—Sgl. Pole..... | | \$.35 | |
| Dble. * | | 1.00 | |
| 3 Way * | | .50 | |
| 4 * | | 3.00 | |
| Composition Cup—Sgl. Pole..... | | .85 | |
| Dble. * | | 1.35 | |
| 3 Way * | | 1.00 | |
| 4 * | | 2.35 | |
| 20 Amp. Sgle. Pole..... | | 1.35 | |
| 20 Amp. Dble. Pole..... | | 1.50 | |
| Round Handle Porcelain Cup—Sgl. Pole..... | | .35 | |
| Dble. * | | 1.00 | |
| 3 Way * | | .50 | |
| 4 * | | 3.00 | |
| New Circuit Type | | | |
| Twin-2 Sgle. Pole Switches..... | | \$1.35 | |
| Twin-1 Sgle. Three Way..... | | 1.50 | |
| Twin-2 Sgle. 3 Way Switches..... | | 2.10 | |
| Triplet-3 Sgle. Pole Switches..... | | 1.75 | |
| Triplet-2 Sgle. & 1-2 Way Switches..... | | 1.90 | |
| Lock Type Porcelain Cap—Sgl. Pole..... | | 1.30 | |
| Dble. * | | .85 | |
| 3 Way * | | .85 | |
| 4 * | | 3.85 | |
| EXTRAS—For Luminous Tip add for Each Handle..... | | .40 | |
| For Glo Guide Handle Switches add for Each..... | | 1.00 | |

TUMBLER SWITCH COMBINATIONS

| Price | | | |
|--|--|--------|--|
| Comb. One Tumbler Switch & One Flush Recep. with Plate Less Box..... | | \$2.00 | |
| Comb. One Tumbler Switch & One Bulls Eye with Plate Less Box..... | | 3.00 | |
| Comb. Switch Tap & Recep. Hubbell 7163-64 Less Plate and Box..... | | 1.60 | |
| Comb. Switch Tap & Pilot Light Hubbell 7180-81 Less Plate and Box..... | | 2.65 | |

| PLATES For Tumbler Switches | | | | |
|--|--------|--------|--------|--------|
| 1 | 2 | 3 | 4 | |
| Gang | Gang | Gang | Gang | |
| Stamped Brass Sprayed Finish .040 Thick..... | \$.15 | \$.30 | \$.45 | \$1.35 |
| Brush Brass .040 * | .20 | .40 | .60 | 1.55 |
| Sprayed .060 * | .20 | .40 | .60 | 1.70 |
| Brush Brass .060 * | .30 | .60 | .90 | 1.85 |
| Bakelite or Composition Molded..... | .20 | .40 | .60 | .80 |
| Twin & Triple Struck Up Plates..... | .30 | .30 | .30 | |
| Solid Brass..... | .50 | .50 | .50 | |
| Hubbell Bakelite Screwless Plates..... | .60 | 1.10 | 1.60 | |
| Bryant DeLuxe Wood Inlaid any Finish..... | 2.25 | 3.90 | 6.40 | |
| All Metal * | .85 | 1.50 | 2.10 | |
| Guth Porcelain Enamel Plates..... | .30 | .65 | 1.00 | |
| Glass Mirror Plates..... | 1.00 | 1.75 | 2.50 | 3.25 |
| Blank Plate .040 Brush Brass Finish..... | .30 | .60 | .90 | |
| Telephone Plate .040 Brush Brass Finish..... | .35 | .45 | .... |  |

SWITCHES, FLUSH PUSH

| Plate & Boxes Extra | | | |
|--|--|--------|--|
| Standard Shallow Type Porcelain Cup—Single Pole..... | | \$0.35 | |
| Double * | | 1.10 | |
| 3 Way * | | .50 | |
| 4 * | | 3.00 | |
| Deep Type Porcelain Cup—Single Pole..... | | .70 | |
| Double * | | 1.15 | |
| 3 Way * | | 1.15 | |
| 4 * | | 3.00 | |
| Special High Grade —Single Pole..... | | 1.15 | |
| Double * | | 1.50 | |
| 3 Way * | | 1.50 | |
| 4 * | | 3.00 | |
| Lock Type Porcelain Cap—Single Pole..... | | 1.45 | |
| Double * | | 1.85 | |
| 3 Way * | | 1.85 | |
| Electroliner Non-Indicating..... | | 3.75 | |
| Indicating..... | | 1.75 | |
| Extra for Luminous Button Add Per Switch..... | | 1.90 | |

PUSH SWITCH COMBINATIONS

With Plates

| Price | | | |
|---|--|--------|--|
| Bryant 117 D. P. Indicat. Switch Flush Receptacle & .060 Plate..... | | \$2.00 | |
| 413 One Push Switch-Bulls Eye and Solid Plate..... | | 4.00 | |
| 518 * Disap. Door Recp. Bull's Eye—Solid Plate..... | | 7.50 | |
| 465 * D. P. Flush Switch & Pilot Lamp .060 Plate..... | | 3.50 | |
| 467 * Flush Switch—Flush Recep.—Bulls Eye—Solid Plate..... | | 6.00 | |
| 558 * Duplex * | | 6.30 | |
| H & H 3752 * Bulls Eye—Solid Plate..... | | 4.00 | |
| 3759 * Duplex Recp. Solid Plate..... | | 5.50 | |
| 8810 * Single | | 5.30 | |

PLATES For Flush Push Switches

| Price | | | | |
|--|--------|--------|--------|--------|
| Stamped Brass Sprayed Finish .040 Thick..... | \$.15 | \$.30 | \$.45 | \$1.35 |
| Brush Brass .040 * | .20 | .40 | .60 | 1.55 |
| Sprayed .060 * | .20 | .40 | .60 | 1.70 |
| Brush Brass .060 * | .30 | .60 | .90 | 1.85 |
| Bakelite or Composition | | .20 | .40 | .60 |
| Bryant DeLuxe Plates Wood Inlaid..... | 2.25 | 3.90 | 6.40 | |
| All Metal * | .85 | 1.50 | 2.10 | |
| Guth Porcelain Plates..... | .30 | .65 | 1.00 | |
| Glass Mirror Plates..... | 1.00 | 1.75 | 2.50 | 3.25 |
| Blank Plate .040 Brush Brass Finish..... | .30 | .60 | .90 | |
| Combination Push & Receptacle Plates .060 Brass..... | | | | .50 |
| Molded * | | | | .40 |
| Guth Enamelled * | | | | .65 |
| Mirror Glass..... | | | | 1.75 |

SWITCHES, SURFACE SNAP

METAL COVERED SNAP SWITCHES

| 5 10 20 30 | | | |
|--------------|-------|---------------------|-------------|
| Poles | Volts | Type | Size |
| Single | 125 | Non-Indicating..... | Pony \$.35 |
| * | * | Indicating..... | .40 |
| * | * | Standard | .60 |
| * | * | Indicating..... | .65 |
| Double | 250 | Non-Indicating..... | .90 |
| * | * | Indicating..... | 1.05 |
| * | * | Indicating..... | 1.20 |
| Triple | * | Non-Indicating..... | 1.00 |
| * | * | Indicating..... | 1.25 |
| 3-Way | 125 | Non-Indicating..... | .90 |
| * | * | Indicating..... | 1.25 |
| 4-Way | 125 | Non-Indicating..... | 1.35 |
| * | * | Indicating..... | 1.50 |
| Electroliner | 125 | Non-Indicating..... | 1.40 |
| * | * | Indicating..... | 1.55 |

| ALL PORCELAIN SNAP SWITCHES | | | | |
|------------------------------------|--------|--------|--------|--------|
| Metals or Composition Covers | | | | |
| Single Pole | | 3 | 4 | |
| 125-250 Volt | | | | |
| 5 Amp. Closed or Slott. Base..... | \$.35 | \$.85 | \$.80 | \$1.40 |
| 5 Amp. with Outlet Box Cover..... | .55 | .90 | | |
| 10 Amp. Closed or Slott. Base..... | .80 | 1.10 | 1.25 | |

| SNAP SWITCHES FOR WOOD MOLD, CONDULETS, ETC. | | | |
|--|------------|----------------|------------|
| Metal Covered | | All Porcelain | |
| 5 Amp. 125 Volts | Indicating | Non-Indicating | Indicating |
| Single Pole | \$.65 | \$.75 | \$.70 |
| Double | 1.20 | 1.10 | 1.20 |
| Three Way | | 1.00 | 1.30 |
| Electroliner | 1.50 | 1.50 | .... |

PARTS FOR SNAP SWITCHES

| Price | | | |
|---|--|--|-----|
| Handles—Standard Type Each \$.12—Ratchet Type..... | | | .20 |
| Bases—Porcelain 5 Amp. \$.12—10 Amp. \$.18—20 Amp. | | | .30 |
| Covers—10 Amp. & Under Metal \$.15—Porcelain..... | | | .20 |
| Over 10 Amp. | | | .30 |

SWITCHES, PULL CORD, CHAIN, CANOPY, LEVOLIER, ETC.

PULL CORD SWITCHES—BODIES ONLY

| Small Socket Type | | | |
|--|--|--|--------|
| Ceiling—Bottom Pull..... | | | \$0.85 |
| Wall—Side Pull..... | | | .95 |
| Rosette—Side Pull..... | | | .95 |
| Fixture—Bottom Pull..... | | | 1.25 |
| 1/2" Brass Cap..... | | | .10 |
| 3/4" Brass Cap..... | | | .15 |
| 1" Brass Cap..... | | | .30 |
| Addition for Caps and Bases for Above Switch Bodies..... | | | |
| Small Cleat Base..... | | | .35 |
| Small Slotted or Concealed Base..... | | | .35 |
| Large Concealed Base..... | | | .40 |
| Wood Moulding Base..... | | | .35 |
| Small Box Base Brass Covered..... | | | .50 |
| 3/4" Box Base Brass Covered..... | | | .60 |
| 4" Box Base Brass Covered..... | | | 1.10 |
| 3/4" Box Cover with Ring..... | | | .20 |
| 4" Box Cover with Ring..... | | | .25 |

HEAVY DUTY PULL CORD SWITCHES, METAL COVER WITH 8 FEET HEAVY CORD

| Price | | | |
|--|--|--|--------|
| S. P. with Small Porc. Slotted or Solid B..... | | | \$1.65 |
| D. P. with Small Porc. Slotted or Solid B..... | | | 1.90 |
| 3 & 4 Point with Small Porc. Slotted or Solid B..... | | | 1.90 |

These switches can be furnished with side or bottom open, at same price.

Switches, Pull Cord

TYPE "O" PULL SWITCHES
For Ceiling Fixtures or Ceiling Fans

Single or Double Pole—3 & 4 Point Electrotrol & Motor Control—Similar to Bryant #2473 to 2480 with $\frac{3}{4}$ Caps, cord & Ball Each..... \$2.00

CANOPY SWITCHES

Snap or Tumbler Canopy Switches any style any make (except below)..... \$.40
Pull Type P & S—3316 or 17—Arrow 340—Bryant 666..... .95

LEVOLIER PULL SWITCHES

McGill Co.

Price

Twi-Lite Canopy or Fixture Switch #50-51-52..... \$1.00
Link Switch #69..... 1.00
Conduit Box & Fixture Switch #61-62 & 63..... 1.00
Switch Hickey 64 & 64 A for above..... .15

PENDANT SWITCHES

With Brass Pendant Cap

Price

Brass Shell Pend. Cap Side Button..... \$.60
Bottom..... .80
Type "O" Side 1.90
All Porcelain Side60
(10 Amps) Side85

FEED THROUGH SWITCHES

Price

Nickel Feed Thru Switch..... \$.50
Composition Feed Thru Switch..... .50
Composition Feed Thru Switch, Egg Shape..... .50
Composition Feed Thru Switch, Pony..... .45

DOOR SWITCHES

Price

Door Switch without Box..... \$4.00
Box Extra..... .60

DOOR SWITCHES & OPENERS
Edwards—commonly used types

Price

#9 Door Opener Mortise Type \$ 2.75 #152 Rim Type Flush..... \$ 6.10
48 Rim 31.25 #152 for Surface Conduit..... 25.25
48A Rim 34.25 #154 Mortise Type..... 5.75
50 Rim 31.25 #153 Plate Type..... 7.15
50A Rim 34.25 #174 Door Switch..... 8.65
51 Plate 34.25 Box for above #2000..... 1.30
51A Plate 35.25 #1541 Opener Mortise Type..... 10.50
52 Mortise 38.25
#239—Latch for #52 3.55

Partrick & Wilkins commonly used types

Mortise Type..... \$2.75 Rim Type..... .35 00

SWITCHES, KNIFE, ENTRANCE & PANEL

ENTRANCE & PANEL SWITCHES
30 Amp. 125 Volts, Plug Fused

| Description | Location of Fuses | Price |
|--|-------------------|-------|
| Double Pole..... | Top | \$.80 |
| Large Size..... | Bottom | .80 |
| Triple..... | Top | .90 |
| Double Pole Single Branch..... | Bottom | 1.25 |
| Large Type..... | Top | 1.35 |
| Double Pole—Double Branch Vert. Mains..... | Bottom | 1.35 |
| Horiz. * | Top | 1.50 |
| Triple to D. P. Double Branch Vert. Mains..... | Horiz. * | 3.00 |
| Horiz. Mains..... | Horiz. Mains..... | 3.15 |

BABY KNIFE SWITCHES

Any Make

| Any Make | Porcelain Base | Slate Base | 125 Volt | 250 Volt | 30 Amp. | 15 Amp. | 15 Amp. | 30 Amp. | 30 Amp. |
|-------------------------------|----------------|------------|----------|----------|---------|---------|---------|---------|---------|
| Single Pole Single Throw..... | \$.50 | \$.60 | \$.60 | \$.70 | | | | | |
| Double Pole Single Throw..... | .85 | 1.05 | 1.00 | 1.25 | | | | | |
| Double Pole Double Throw..... | .60 | .70 | .70 | .85 | | | | | |
| Triple Pole Single Throw..... | 1.05 | 1.30 | 1.25 | 1.50 | | | | | |
| Triple Pole Double Throw..... | 1.80 | 1.85 | 1.80 | 1.85 | | | | | |
| | | | 2.00 | 2.30 | | | | | |

TYPE "C" KNIFE SWITCHES

Slate Base Front Connected

Trumbull-Bulldog or Similar

| Front Connected Slate Base | Not Fusible | Fusible | 2 | 4 | 2 | 3 | 4 | Pole | Pole | Pole | Pole | Pole | Pole |
|-----------------------------------|-------------|---------|--------|--------|--------|--------|-------|-------|-------|-------|-------|-------|-------|
| Sgl. Throw 30 A. 250 V. Only..... | \$1.15 | \$1.65 | \$2.35 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| 250 & 500 V. AC | 1.15 | 1.65 | 2.35 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| 30 A..... | 1.75 | 2.65 | ..... | \$1.70 | \$2.60 | \$3.50 | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| 60 A..... | 2.00 | 3.00 | 4.05 | 2.95 | 4.45 | 5.95 | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| 100 A..... | 4.10 | 6.20 | 8.25 | 6.00 | 9.05 | 12.05 | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| 200 A..... | 7.45 | 11.15 | 14.85 | 11.10 | 16.70 | 23.25 | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| Dbl. Throw 30 A. 250 V. Only..... | 1.90 | 2.95 | 4.22 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| 250 & 500 V. AC | 2.80 | 4.35 | 5.10 | 3.60 | 5.80 | 7.95 | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| 60 A..... | 3.80 | 5.10 | 7.25 | 5.60 | 8.95 | 12.85 | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| 100 A..... | 7.40 | 11.35 | 16.10 | 12.20 | 19.50 | 26.85 | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| 200 A..... | 12.35 | 19.05 | 25.55 | 21.40 | 34.30 | 43.90 | ..... | ..... | ..... | ..... | ..... | ..... | ..... |

SWITCHES, RESIDENCE, METER SERVICE, INDUSTRIAL, ETC.

SMALL SERVICE ENTRANCE SWITCHES

30 Amp. "Square D" Switches Residence Type

| Numbers | Volts | Description | 2 Pole | 3 Pole |
|-------------|-------|-------------------------------|--------|--------|
| 07211-97311 | 125 | For Plug Fuse Solid Neut..... | \$1.65 | \$2.50 |
| 09211-99311 | 125 | Neut. Fused..... | 1.65 | 3.00 |
| 78211-78311 | 125 | Meter Test..... | 2.55 | 4.10 |
| 1211 | 125 | Forc. Entr. Switch..... | 1.60 | ..... |
| 07251-07351 | 250 | Enc. Fused Solid Neut..... | 1.65 | 3.20 |
| 99251-09351 | 250 | Fused Neut..... | 2.60 | 4.35 |

METER SERVICE SWITCHES

"Square D" Accessible Main Fuses Without End Walls

| Amps. Poles | Fused For | Neutral | Meter Test Type | Non-Meter Test Type |
|-------------|-----------|---------|-----------------|---------------------|
| | 2 | 1 | Number Price | Number Price |
| 30 | 2 | 2 | 30211 \$ 3.70 | 10211 \$ 3.35 |
| 30 | 2 | 1 | 30231 3.25 | 10231 3.05 |
| 30 | 2 | * | 30331 4.15 | 10331 3.70 |
| 30 | 2 | * | 30381 4.85 | 10381 4.85 |
| 30 | 2 | Enc. | 30261 4.45 | 10261 4.25 |
| 30 | 1 | Solid | 30271 3.60 | 10271 3.60 |
| 30 | 2 | Unfused | 30361 5.40 | 10361 5.65 |
| 30 | 2 | * | 30371 4.45 | 10371 4.25 |
| 60 | 2 | * | 30252 15.10 | 10252 14.20 |
| 60 | 1 | Solid | 30272 14.20 | 10272 13.30 |
| 60 | 2 | * | 30362 21.65 | 10362 20.55 |
| 60 | 2 | * | 30372 16.00 | 10372 15.05 |
| 100 | 2 | * | 30253 23.85 | 10253 23.00 |
| 100 | 1 | Solid | 30273 23.85 | 10273 22.10 |
| 100 | 2 | * | 30363 30.90 | 10363 29.35 |
| 100 | 3 | 2 | 30373 25.60 | 10373 23.85 |

METER SERVICE SWITCHES

"Square D" Main Fuses Sealed Without End Walls

| Amps. Poles | Fused For | Neutral | Meter Test Type | Non-Meter Test Type |
|-------------|-----------|---------|-----------------|---------------------|
| | 2 | 1 | Number Price | Number Price |
| 30 | 2 | 2 | 30211 \$ 3.25 | 10211 \$ 2.85 |
| 30 | 2 | 1 | 30231 3.25 | 10231 2.85 |
| 30 | 3 | 2 | 30331 3.45 | 10331 3.00 |
| 30 | 3 | 3 | 30381 3.45 | 10381 3.45 |
| 30 | 2 | 2 | 30251 3.80 | 10251 3.40 |
| 30 | 2 | 1 | 30271 3.50 | 10271 3.15 |
| 30 | 2 | * | 30361 4.00 | 10361 4.30 |
| 30 | 2 | * | 30371 4.00 | 10371 3.55 |
| 60 | 2 | * | 30252 12.90 | 10252 11.50 |
| 60 | 1 | Solid | 30272 12.00 | 10272 11.10 |
| 60 | 2 | * | 30362 19.00 | 10362 17.90 |
| 60 | 2 | * | 30372 13.75 | 10372 12.85 |
| 100 | 2 | * | 30253 21.25 | 10253 20.35 |
| 100 | 1 | Solid | 30273 21.25 | 10273 19.45 |
| 100 | 2 | * | 30363 26.50 | 10363 24.75 |
| 100 | 3 | 2 | 30373 23.00 | 10373 21.25 |

MISCELLANEOUS

| Enclosed Double Branch Cutout No. 35211—30 Amp. 125 Volts..... | Price |
|--|-------|
| 3021—30 | 2.20 |
| 3021—30 | 2.20 |
| Cartridge..... | 5.65 |
| Cabinet Porcelain Fuse Block.... | 1.25 |

UNIVERSAL METER SERVICE SWITCHES

"Square D" Meter Service Types

| Single Type | Ganging Type | | | | |
|--------------------------------|---------------------------------------|------------------------|----------------|--------------------------------|-------|
| No. 32211 or 35211..... \$3.45 | No. 12211-13211..... \$3.85 | | | | |
| 32311..... 3.75 | No. 12311..... 4.15 | | | | |
| No. 34211..... 4.30 | without end walls No. 14311..... 5.25 | | | | |
| No. 34311..... 4.85 | | | | | |
| Number | Amps. Poles | Fuse Dead..... \$ 2.20 | Live..... 2.70 | | |
| 55211 | 30 | 2 | 1 | Plug Fused..... | 2.70 |
| 58211 | 30 | 2 | 2 | Fused..... | 2.70 |
| SK-916 | 30 | 1 | 1 | Solid..... | 3.45 |
| 55311 | 30 | 3 | 2 | Solid..... | 3.45 |
| 57311 | 30 | 3 | 2 | * | 3.45 |
| 15211 | 30 | 2 | 1 | Gang Type Fuse Dead..... | 2.60 |
| 18211 | 30 | 2 | 2 | Fused..... | 3.10 |
| 30231 | 30 | 2 | 2 | Solid..... | 4.05 |
| 30331 | 30 | 2 | 2 | Gang Type Acces. M. Fuses..... | 4.85 |
| 15311 | 30 | 3 | 2 | Gang Type Acces. M. Fuses..... | 4.85 |
| 17311 | 30 | 3 | 2 | Dead..... | 3.85 |
| 58251 | 30 | 2 | 2 | Extra for End Wall..... | 3.00 |
| 26251 | 30 | 2 | 2 | Cart. Fused..... | 3.05 |
| 57351 | 30 | 3 | 2 | Solid..... | 3.75 |
| 28252 | 60 | 3 | 2 | Fused..... | 3.45 |
| 27312 | 60 | 3 | 2 | Solid..... | 3.75 |
| 14812 | 60 | 3 | 2 | * | 3.90 |
| 28253 | 100 | 2 | 2 | Fused..... | 19.80 |
| 28253 | 100 | 2 | 2 | Solid..... | 15.05 |
| 27313 | 100 | 3 | 2 | * | 15.95 |
| 14813 | 100 | 3 | 2 | Dead..... | 27.30 |

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LA SALLE
Moderne
No. 9016-D8



Decorated
(Black or Colors)
or
In Snow White
Glass



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C-H 471

A Page
from Our
New Catalog

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Whole Book
Full of Smart
Modern Ideas
in Colors

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The Square MODERNIZER No. 2944-45

Honey

A new effect in color. Restful to the eye. Will blend with any interior decorations.



Bottom View



Complete with fixtures

Rose

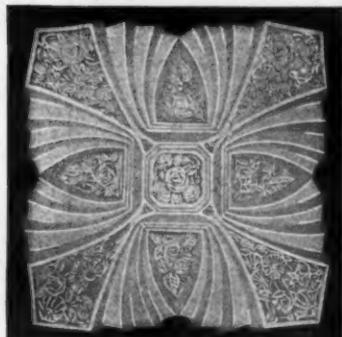
The always popular boudoir color. Gives the bedroom the color effects desired.

Dimensions

Overall depth..... 9½"
Diameter..... 14"
Fitter..... 2¾"

Jade

An enhancing color for the sun parlor, breakfast room or bedroom.



Bottom View

The 2950 Pocket



Front View

FRENCH CRYSTAL

The Sparkle of the Old French prisms. Brought to you without glare.



Back Plate

DIMENSIONS

Width 5½"
Length 12"
Extends 5½"



Side View

| | | List Price | Std. Pkg. |
|---------|------------------------|------------|-----------|
| 2944-45 | COMPLETE LUMINERE..... | \$8.65 ea. | 1 pe. |
| 2944-45 | GLASS ONLY..... | 6.00 ea. | 1 pe. |
| 2950 | WALL POCKET..... | 4.00 ea. | 2 pc. |
| | METAL BACK PLATE..... | 4.00 ea. | 2 pc. |

Standard Finish—Glass: Honey—Jade—French Crystal—Rose.
Standard Finish—Metal: Silver and Bronze.

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Malleable Unilet with Cadmium Finish



TYPE "E"
Malleable Unilet with Cadmium Finish



TYPE "LB"
Malleable Unilet with Cadmium Finish

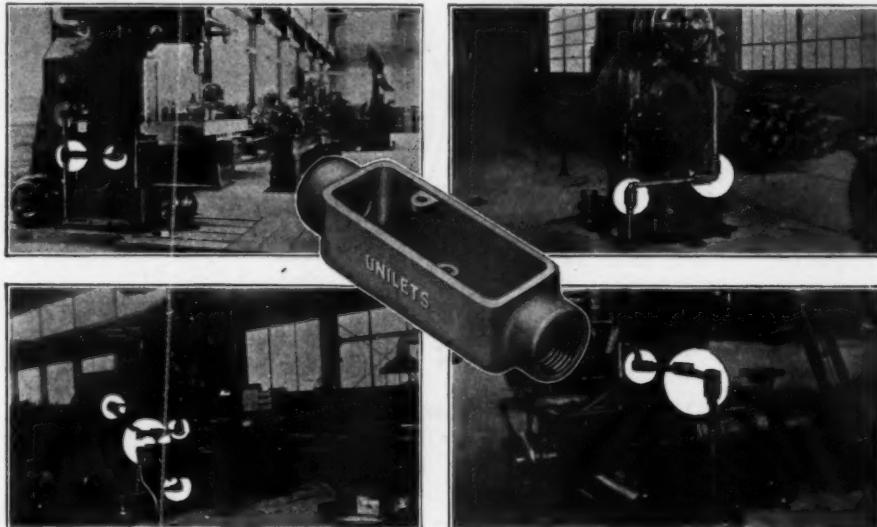


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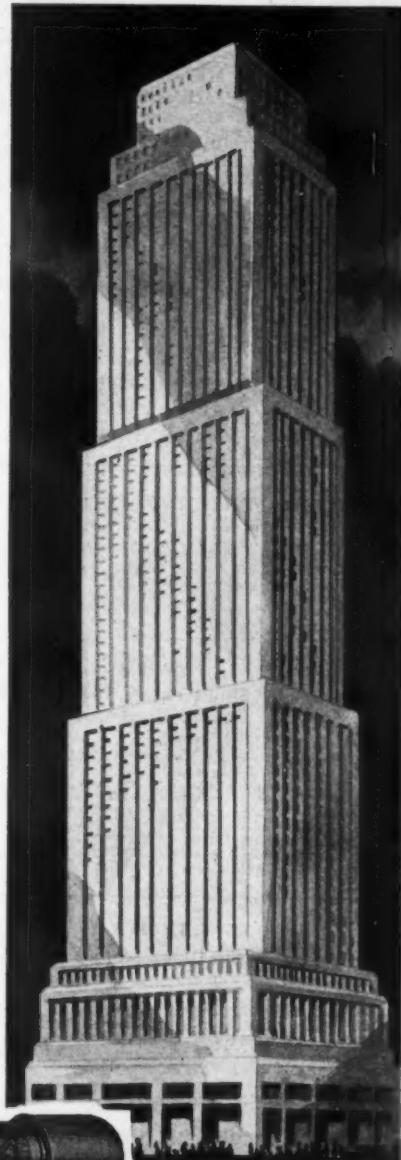


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Switch Boxes
Fittings
Non-metallic Sheathed Cable
Non-metallic Flexible Conduit
Armored Cable Tool

PL-22
Switches

METER SERVICE SWITCHES—Continued

NON-METER TEST TYPE

| Number | Amps. | Pole | Fused | Neutral | Description | Price |
|--------|-------|------|-------|------------|----------------------|---------|
| 26311 | 30 | 3 | 2 | Plug Solid | Plug Type Fuse Dead | \$ 2.40 |
| 26351 | 30 | 3 | 2 | Cart. | Cart. Type Fuse Dead | 3.75 |
| SK-650 | 30 | 3 | 2 | " | Cart. Type Fuse Dead | 4.30 |
| SK-660 | 60 | 3 | 2 | " | Cart. Type Fuse Dead | 11.70 |
| SK-674 | 100 | 3 | 2 | " | Cart. Type Fuse Dead | 19.20 |

POLYPHASE METER SERVICE SWITCHES
"Square D" Accessible Main Fuse Type

METER TEST TYPE

| Number | Amp. | Pole | Fused | Price |
|--------|------|------|---------|---------|
| 30391 | 30 | 3 | 3 Cart. | \$ 9.90 |
| 30392 | 60 | 3 | 3 " | 20.35 |
| 30393 | 100 | 3 | 3 " | 30.00 |

NON METER TEST

| Number | Amp. | Pole | Fused | Price |
|--------|------|------|---------|---------|
| 10391 | 30 | 3 | 3 Cart. | \$ 9.90 |
| 10392 | 60 | 3 | 3 " | 18.60 |
| 10393 | 100 | 3 | 3 " | 25.25 |

"Square D" Sealable Main Fuses

METER TEST TYPE

| Number | Amp. | Pole | Fused | Price |
|--------|------|------|---------|---------|
| 36351 | 30 | 3 | 3 Cart. | \$10.95 |
| 36352 | 60 | 3 | 3 " | 17.80 |
| 36393 | 100 | 3 | 3 " | 26.50 |

NON METER TEST

| Number | Amp. | Pole | Fused | Price |
|--------|------|------|---------|---------|
| SK-671 | 30 | 3 | 3 Cart. | \$ 4.30 |
| SK-672 | 60 | 3 | 3 " | 11.70 |
| SK-673 | 100 | 3 | 3 " | 19.20 |

FITTINGS FOR STANDARDIZED SWITCHES

| End Walls for 30 Amp. Switches | Price |
|--------------------------------------|-------|
| • 60 & 100 Amp. Switches | .80 |
| Trough Closing Plates No. 20533 & 34 | 10 |
| Connecting Trough No. 20733-3½" Long | .45 |
| • 20738-8½" | .80 |
| Universal End Wall & Shutters | .30 |
| • Meter Shutter only No. 24358 | .15 |

TYPE C

"Square D" Single Throw, Industrial Switches
Quick Break Only

| 250 Volts Fusible | | 575 V. AC with Arc Suppressor | | Fused and | |
|-------------------|----------------------------|-------------------------------|-------|-----------------|--------------|
| Amps. | 2 Pole | 3 Pole | Amps. | Description | 3 Pole |
| 30 | #88251 \$3.20 | #88351 \$5.20 | 30 | 575V. Fused.... | 46341 \$1.65 |
| 60 | #88252 \$8.20 | #88352 10.00 | 30-60 | 575V. Not Fused | 41342 10.05 |
| 60 | Solid Neutral #47312 9.10 | | 60 | 575V. Fused.... | 46348 13.85 |
| 100 | #45253 \$12.75 | #45353 15.50 | 100 | 575V. Not Fused | 41343 17.85 |
| 100 | Solid Neutral #48813 14.60 | | 100 | 575V. Fused.... | 46343 21.85 |
| 200 | #46254 \$20.00 | #46354 26.40 | 200 | 575V. Not Fused | 41344 29.15 |
| 200 | Solid Neutral #47314 22.75 | | 200 | 575V. Fused.... | 46344 38.25 |

TYPE A

"Square D", Industrial Quick Make & Break, Single Throw

| 250 V. DC. and AC. Fusible | | 250-600 V. DC. and 575 V. AC. Unfusible | | | |
|----------------------------|----------------|---|-------|---------------|----------------|
| Amps. | 2 Pole | 3 Pole | Amps. | 2 Pole | 3 Pole |
| x30 | #80251 \$10.90 | #80351 \$13.65 | x30 | #81251 \$9.55 | #81351 \$11.40 |
| 60 | #86252 13.65 | #86352 18.20 | 30-60 | #81262 13.65 | #81342 18.95 |
| 100 | #86253 20.90 | #86353 27.30 | 100 | #81263 20.95 | #81343 24.10 |
| 200 | #86254 36.40 | #86354 40.95 | 200 | #81264 38.20 | #81344 34.60 |
| (x 250 Volts only) | | | | | |

30 AMP. TYPE C

"Square D", Quick Break, Industrial, Single Throw

| 250 Volts | 2 Pole | Description | Single Throw |
|--|--------|--------------------|-------------------|
| No. | | | 3 Pole |
| No. 89251 | \$3.20 | Quick Make & Break | No. 89351 \$ 5.20 |
| 91251 | 2.65 | Not Quick Break | 91351 4.00 |
| x90251 | 7.75 | Quick Break Only | x90351 10.00 |
| (x 30 Amp. Switches with 30 Amp. Clips). | | | |

MOTOR STARTERS

"Square D", Quick Make & Break, Single Throw

| Numbers & Types | Amps. | Volts | 2 Pole | 3 Pole | 4 Pole |
|---|-------|-----------|---------|---------|---------|
| 76251-76451 Cover Control | 30 | 250 V. | \$15.50 | \$16.40 | \$22.75 |
| 76352-76452 | 60 | 250 V. | ..... | 22.75 | 31.85 |
| 76341-76441 | 30 | 575 V. AC | ..... | 22.75 | 31.85 |
| 76342-76442 | 60 | 575 V. AC | ..... | 32.75 | 41.85 |
| 69251-351 without Cover Control | 30 | 250 V. | 19.65 | 14.60 | 20.95 |
| 69352-69452 | 60 | 250 V. | ..... | 20.95 | 30.00 |
| 69341-69441 | 30 | 575 V. AC | ..... | 31.00 | ..... |
| 73251-351 Time Protective | 30 | 250 V. | 6.40 | 6.85 | ..... |
| 73341 & SK20354 Time Protective | 30 | 575 V. AC | ..... | 11.85 | 13.65 |
| No. 98251 For Small AC & DC Motors up to 1/4 H. P. 250 Volts AC | | | | \$1.85 | |

TYPE "C" SWITCHES

Cutler-Hammer (T-V) Single Throw Industrial Type Series 4131

| 250 Volts DC or AC Fusible | 500-600 Volts AC Fusible | | |
|----------------------------|--------------------------|-------------------|-----------------|
| Amps. 2 Pole | 3 Pole | Amps. 2 Pole | 3 Pole |
| 30 4131H2 \$ 3.15 | 4131H3 \$ 5.15 | 30 4131H7 \$ 8.55 | 4131H24 \$ 9.00 |
| 60 4131H3 8.10 | 4131H4 9.90 | 60 4131H8 9.90 | 4131H25 10.80 |
| 100 4131H4 12.60 | 4131H5 15.30 | 100 4131H9 14.40 | 4131H26 17.10 |
| 200 4131H5 19.80 | 4131H6 26.10 | 200 4131H10 29.80 | 4131H27 32.40 |
| 400 4131H6 48.60 | 4131H7 66.60 | 400 4131H11 64.80 | 4131H28 81.00 |

| 125-250 Volt Solid Neut. Fusible | Non-Fusible Type 250 DC 500-600 AC | | |
|----------------------------------|------------------------------------|-------------------------------------|-----------------|
| Amps. 3 Pole | 4 Pole | Amps. 2 Pole | 3 Pole |
| 30 4131H39 \$ 6.70 | 4131H44 \$ 8.10 | 30 4131H54 \$ 3.15 | 4131H58 \$ 4.05 |
| 60 4131H40 9.00 | 4131H46 11.25 | 60 4131H55 8.10 | 4131H59 8.55 |
| 100 4131H41 14.40 | 4131H46 20.25 | 100 4131H56 10.80 | 4131H60 12.15 |
| 200 4131H42 22.50 | 4131H47 31.50 | 200 4131H57 18.90 | 4131H61 22.50 |
| 400 4131H43 63.00 | 4131H48 81.00 | 400 4131H58 Only Amp 250 Volts Only | |

ENTRANCE SWITCHES, LIGHT TYPE
Cutler-Hammer (T-V)

| 2 Pole | 3 Pole | | | | | | |
|--------|----------------------------|----------|---------|------------|-------------|---------|-------|
| Amps. | Description | Numbers | Price | Amps. | Description | Numbers | Price |
| 30 | For Plug Fuses | 4141H1&2 | \$ 1.65 | 4141H3-4 | 2.90 | | |
| 30 | 2 Blade -2 Fuses | 4141H6&8 | 1.80 | 4141H5 | 2.25 | | |
| 30 | For Cartridge Fuses | 4141H4 | 2.70 | 4141H9-10 | 3.55 | | |
| 30 | For 2 Cart. Blades-2 Fuses | 4141H17 | ..... |  |  |  |  |
| 30 | Non-Fusible | 4141H23 | 2.35 | 4141H24 | 4.15 | | |
| 60 | For Cartridge Fuses | 4141H13 | 6.65 | 4141H13-15 | 7.75 | | |
| 60 | For 2 Blades & 2 Fuses | 4141H16 | 7.40 | 4141H16-18 | 10.80 | | |
| 100 | For Cartridge Fuses | 4141H18 | 10.20 | 4141H19-20 | 12.55 | | |
| 100 | For 2 Blades & 2 Fuses | 4141H21 | 11.80 | | | | |

METER SERVICE SWITCHES

Cutler-Hammer (T-V) Without End Walls

| Meter Test Type | | Without End Walls | | |
|-------------------------|-----------|-------------------|---------|---------|
| Live Fuse Type | End Walls | 30 A. | 60 A. | |
| 30 For Plug Fuses | 4307H1&5 | \$ 2.75 | 4307H9 | \$ 3.45 |
| 30 For Cartridge Fuses | 4307H2&6 | 3.05 | 4307H10 | 3.75 |
| 60 For Cartridge Fuses | 4307H3&7 | 8.45 | 4307H11 | 9.70 |
| 100 For Cartridge Fuses | 4307H4&8 | 15.05 | 4307H12 | 16.00 |

| Dead Fuse Type | | Without End Walls | | |
|-------------------------|------------|-------------------|---------|-------|
| Test Type | End Walls | 30 A. | 60 A. | |
| 30 For Plug Fuses | 4327H1&2 | 3.40 | 4327H3 | 3.70 |
| 30 For Cartridge Fuses | 4327H4&5 | 4.25 | 4327H6 | 4.25 |
| 60 For Cartridge Fuses | 4327H7&8 | 16.00 | 4327H9 | 16.90 |
| 100 For Cartridge Fuses | 4327H10&11 | 24.75 | 4327H12 | 25.65 |

POLYPHASE METER SERVICE SWITCHES

Style & Numbers End Walls 30 A. 60 A. 100 A.

Meter Test Sealed Fuse Type No. 4315H1-2-3 Yes \$9.50 \$17.00 \$27.30

Meter Test Accessible Fuse Type No. 4329H18-19-20 No. 9.95 20.35 30.00

Non-Meter Test Accessible Fuse Type No. 4329H25-26-27 No. 9.35 18.60 28.25

For Detailed Description See Cutler Hammer (Trumbull Vanderpoel) Catalog.

TYPE "A" SWITCHES

Single Throw—Series 4111

| Fusible 250 Volt DC or AC | Fusible 500-600 Volts |
| --- | --- |

Switches

Switches

MOTOR STARTING SWITCHES

Manual Operated T-V

| Series | Description | Amps | Volts | 2 Pole | 3 Pole | 4 Pole |
|--------|--------------------------------------|------|--------|---------|---------|---------|
| 4151H1 | Light Duty Motor Sw. 3/4 HP or Less. | 30 | 125 | \$ 1.65 | ..... | ..... |
| 9115H3 | Motor Switch with Thermal Cutout. | 30 | To 550 | ..... | \$13.75 | \$19.10 |
| 4231H | For infrequent Duty. | 30 | 220 | 8.10 | 9.95 | 12.85 |
| 4246H | For infrequent Duty 5 HP. | 30 | 220 | 12.45 | 13.05 | 16.50 |
| 4246H | For infrequent Duty 7 1/4 HP. | 30 | 440 | 19.45 | 23.40 | 26.55 |
| 4246H | For infrequent Duty 7 1/2 HP. | 60 | 220 | 17.10 | 19.45 | 26.55 |
| 4256 | Motor Reversing Sw. Dble. Throw. | 30 | 250 | 13.95 | 18.90 | 24.75 |
| 4266 | Motor Reversing Sw. Dble. Throw. | 60 | 250 | 17.55 | 22.05 | 32.40 |
| 4256 | Motor Reversing Sw. Dble. Throw. | 100 | 250 | 29.25 | 37.35 | 64.80 |

SMALL ENTRANCE SWITCHES

Trumbull Electric Closed or Open Ends

| Numbers | Amps | Volts | Fusing | 2 Pole | 3 Pole |
|----------------------------|------|---------|------------------------|--------|--------|
| 5790 EW Porc. Base..... | 30 | 125 | For 1 Plug Fuse.... | \$1.65 | ..... |
| 5791-2-3-4 & 5893..... | 30 | 125 | Plug Fuses.... | 1.85 | \$3.45 |
| 5891-5892 Porc. Base | 30 | 125-250 | " " | 1.85 | 2.40 |
| 13640-13641 Kappa..... | 30 | 260 | No Fuse-Slate Base.... | 2.75 | 4.10 |
| 13642-43 & 13743..... | 30 | 250 | For Enclosed Fuses.... | 2.75 | 4.35 |
| 13221-13321 Quick Break. | 30 | 250 | " " | 3.55 | 5.20 |

"DO-ALL" MAIN ENTRANCE SWITCHES

Trumbull Electric Non Meter Test Solid End Wall

| | 16361 to 16368..... | 30 | 125-250 | For Plug Fuses.... | \$2.70 | \$3.45 |
|--------------------|---------------------|-----|---------|--------------------|--------|--------|
| 16371 • 16378..... | 30 | • | • | Enclosed Fuses.. | 3.05 | 3.75 |
| 16381 • 16388..... | 60 | 250 | • | • | 8.45 | 8.90 |
| 16391 • 16398..... | 100 | 250 | • | • | 15.05 | 15.95 |

"DO-ALL" METER SERVICE SWITCHES

Trumbull Electric For Meters Open End

| | 16300 to 16309..... | 30 | 125-250 | For Plug Fuses.... | 8.2.70 | \$ 3.45 |
|--------------------|---------------------|----|---------|--------------------|--------|---------|
| 16315 • 16324..... | 30 | • | • | Enclosed Fuses.. | 3.05 | 3.75 |
| 16330 • 16338..... | 60 | • | • | • | 8.45 | 8.90 |
| 16341 • 16346..... | 100 | • | • | • | 15.05 | 15.95 |

ACCESSIBLE FUSE METER SWITCHES

Trumbull Electric With Test Blades Without End Walls

| | 18111..... | 30 | 125 | For 1 Plug Fuse.... | \$ 3.25 | ..... |
|--------------------|------------|---------|-----|---------------------|---------|--------|
| 18211-18311..... | 30 | 125 | • | Plug Fuses.... | 3.70 | \$4.20 |
| 18121..... | 30 | 125-250 | • | 1 Enclosed Fuse | 3.60 | ..... |
| 18221-18321..... | 30 | • | • | Enclosed Fuses.. | 4.45 | 4.45 |
| 18122-222-322..... | 60 | • | • | • | 14.15 | 15.05 |
| 18123-223-323..... | 100 | • | • | • | 23.85 | 25.60 |

Without End Walls and Without Test Blades

| | 18111..... | 30 | 125 | For 1 Plug Fuse.... | \$ 3.05 | ..... |
|--------------------|------------|---------|-----|---------------------|---------|--------|
| 18211-19311..... | 30 | 125-250 | • | Plug Fuses.... | 3.25 | \$3.70 |
| 18121..... | 30 | • | • | 1 Enclosed Fuse | 3.60 | ..... |
| 18221-19321..... | 30 | • | • | Enclosed Fuses.. | 4.25 | 4.25 |
| 18122-222-322..... | 60 | • | • | • | 14.15 | 15.05 |
| 18123-223-323..... | 100 | • | • | • | 23.85 | 25.60 |

SEALED FUSE METER SWITCHES

Trumbull Electric With Test Blades Without End Walls

| | 28127..... | 30 | 125 | For 1 Plug Fuse.... | \$ 2.20 | ..... |
|------------------------|------------|---------|-----|---------------------|---------|--------|
| 28111-28211-28311..... | 30 | 125 | • | Plug Fuses.... | 3.25 | \$3.45 |
| 28211..... | 30 | 125 | • | 1 Enclosed Fuse | 3.50 | ..... |
| 28221-28321..... | 30 | 125-250 | • | Enclosed Fuses.. | 3.75 | 4.00 |
| 28122-28222-28322..... | 60 | • | • | • | 12.85 | 13.75 |
| 28123-223-323..... | 100 | • | • | • | 21.60 | 23.35 |

Without Test Blades

| | | | | | | |
|----------------------|----|---------|---------------------|------------------|-------|---------|
| 29111..... | 30 | 125 | For 1 Plug Fuse.... | \$ 2.85 | ..... |  |
| 29211-29311..... | 30 | 125-250 | • | Plug Fuses.... | 2.85 | \$ 3.00 |
| 29121..... | 30 | 125 | • | 1 Enclosed Fuse | 3.15 | ..... |
| 29221-29321..... | 30 | 250 | • | Enclosed Fuses.. | 3.40 | 3.55 |
| 29122-222 & 322..... | 60 | 250 | • | Enclosed Fuses | 12.00 | 12.90 |
| 29123-223 & 323..... | 60 | 250 | • | Enclosed Fuses | 20.35 | 21.20 |

UNIVERSAL METER SERVICE SWITCHES

Trumbull Electric Without End Walls

| | #711-123..... | 30 | 125 | For 1 Plug Fuse..... | \$3.45 | ..... |
|---------------|---------------|-----|-------------------------------|----------------------|--------|-------|
| 0721-123..... | 30 | 125 | For 2 Plug Fuses..... | 4.30 | ..... |  |
| 973-333..... | 30 | 125 | For 2 Plug Fuses " Solid Neu. | ..... | \$3.75 | |
| 975-333..... | 30 | 125 | For 3 Combinations.... | 4.85 | 4.85 | |
| 979-333..... | 30 | 125 | For 4 Combinations.... | 4.85 | 4.85 | |

POLYPHASE METER SWITCHES

Trumbull Electric

| Series Nos. | Style | 3 Pole | 4 Pole | 3 Pole | 4 Pole |
|-------------|----------------------------------|----------|---------|---------|---------|
| 15321-15623 | Acc. Fuse—Test Conn. | \$11.00 | \$15.00 | \$21.10 | \$37.00 |
| 17321-17623 | Acc. Fuse without Test Conn. | 10.95 | 12.80 | 19.40 | 22.00 |
| 26321-26623 | Sealed Fuse with Test Conn. | 11.50 | 14.40 | 17.60 | 23.50 |
| Series Nos. | Style | 100 Amp. | ..... | ..... | ..... |
| 15321-15623 | Acc. Fuse—Test Conn..... | 3 Pole | 4 Pole | 3 Pole | 4 Pole |
| 17321-17623 | Acc. Fuse without Test Conn..... | \$30.80 | \$47.25 | ..... | ..... |
| 26321-26623 | Sealed Fuse with Test Conn..... | 27.30 | 44.00 | ..... | ..... |

END WALLS, SHUTTERS, TROUGHS, ETC.

Trumbull Electric

| Amps. | 2 Pole | 3 Pole | 2 Pole | 3 Pole |
|-------|-----------------|-----------------|-----------------|-----------------|
| 30 | \$72221 \$10.80 | \$72221 \$12.60 | \$72221 \$ 9.45 | \$72221 \$11.25 |
| 60 | 72222 13.50 | 72222 17.10 | 72222 9.90 | 72222 11.70 |
| 100 | 72223 20.70 | 72223 27.00 | 72223 13.50 | 72223 18.50 |
| 200 | 72224 32.40 | 72224 38.00 | 72224 18.10 | 72224 21.50 |

TYPE "A" SWITCHES

Trumbull Electric Single Throw, Quick Make & Break

| Amps. | 250 Volts Fusible | 250 Volts Unfused | 250 Volts Fusible | 250 Volts Unfused |
|-------|-------------------|-------------------|-------------------|-------------------|
| 30 | \$72251 \$14.40 | \$72251 \$18.00 | \$72251 \$10.70 | \$72251 \$13.05 |
| 60 | 72252 16.20 | 72252 18.90 | 72252 10.70 | 72252 14.40 |
| 100 | 72253 25.20 | 72253 28.80 | 72253 19.80 | 72253 21.60 |
| 200 | 72254 39.60 | 72254 45.00 | 72254 25.20 | 72254 30.60 |

TYPE "C" SWITCHES

Trumbull Electric Single Throw, Quick Break Only

| Amps. | 250 Volts Fusible | 250 Volts Unfused | 250 Volts AC Fusible | 250-500 Volts Unfused |
|-------|-------------------|-------------------|----------------------|-----------------------|
| 30 | \$40221 \$ 5.40 | \$40221 \$ 6.75 | \$40221 \$ 4.95 | \$40221 \$ 6.30 |
| 60 | 40222 8.10 | 40222 9.90 | 40222 6.20 | 40222 7.70 |
| 100 | 40223 12.50 | 40223 15.50 | 40223 9.70 | 40223 11.50 |
| 200 | 40224 19.80 | 40224 26.10 | 40224 17.00 | 40224 20.00 |

SMALL 30 AMP. MIDGET & TYPE "OO"

Westinghouse Residence Type

| Amps. Fused | 2 Pole | 3 Pole | 2 Pole | 3 Pole |
|-------------|-----------------------------------|------------------------------------|------------------------------------|------------------------------------|
| For | No. Price | No. Price | No. Price | No. Price |
| 30 | 62613 \$ 1.65 | 62613 \$ 1.65 | 62613 \$ 1.65 | 62613 \$ 1.65 |
| Type OO | Fusible For Plug Fuses 125-250 V. | Fusible Solid Neut. For Plug Fuses | Fusible Solid Neut. For Plug Fuses | Fusible Solid Neut. For Plug Fuses |
| 60 | 60969 1.85 | 60969 1.85 | 60969 1.85 | 60969 1.85 |
| 100 | 60970 2.05 | 60970 2.05 | 60970 2.05 | 60970 2.05 |
| 200 | 60971 2.25 | 60971 2.25 | 60971 2.25 | 60971 2.25 |
| 300 | 60972 2.55 | 60972 2.55 | 60972 2.55 | 60972 2.55 |
| 400 | 60973 2.80 | 60973 2.80 | 60973 2.80 | 60973 2.80 |
| 500 | 60974 3.05 | 60974 3.05 | 60974 3.05 | 60974 3.05 |
| 600 | 60975 3.35 | 60975 3.35 | 60975 3.35 | 60975 3.35 |
| 700 | 60976 3.60 | 60976 3.60 | 60976 3.60 | 60976 3.60 |
| 800 | 60977 3.85 | 60977 3.85 | 60977 3.85 | 60977 3.85 |
| 900 | 60978 4.10 | 60978 4.10 | 60978 4.10 | 60978 4.10 |
| 1000 | 60979 4.35 | 60979 4.35 | 60979 4.35 | 60979 4.35 |

POLYPHASE METER SWITCHES

Westinghouse "WK-54" Without End Walls

| 3 Pole Sealed Main Fuse Meter Testing | 60 Amp. No. 60266 Less End Wall \$11.00 | 60 Amp. No. 60267 Less End Wall \$11.50 | 60 Amp. No. 60268 Less End Wall \$12.00 |
|---------------------------------------|---|---|---|
| 30 Amp. No. 60097 | | | |

Switches

30 AMP. SERVICE ENTRANCE SWITCHES
Bulldog

| | |
|--|--------|
| 2 Pole—125 Volt—Fusible—For Plug Fuses No. JE211 S & P..... | \$1.65 |
| 125 " " " Quick Make & Break | |
| JF211S..... | 2.70 |
| 250 " " " For Cart. Fuses SF221 S & P..... | 2.50 |
| 2 Pole—250 Volt—Not Fusible—For Cart. Fuses SN221 S & P..... | 2.70 |
| 3 Pole—125 Volt—Fusible—For Plug Fuses No. JE311 SP & PG..... | 3.00 |
| 3 Pole—125 Volt—Fusible—For Plug Fuses Quick Make & Break JF311S | 4.35 |

"TYPE A"

Bulldog Single Throw Quick Make and Break

| | 2 Pole | 3 Pole | 2 Pole | 3 Pole |
|-------------------------|--------------|----------|--------|----------|
| 250 Volts Fusible | Number | Price | Number | Price |
| 30 Amp. | SF-221 | \$ 10.50 | SF-321 | \$ 13.50 |
| 60 " | SF-222 | 13.50 | SF-322 | 18.00 |
| 100 " | SF-223 | 20.70 | SF-323 | 27.00 |
| 200 " | SF-224 | 36.00 | SF-324 | 41.50 |
| 400 " | SF-225 | 67.50 | SF-325 | 90.00 |
| 500-600 Volts Fusible | | | | |
| 30 Amp. | For | SF-351 | 19.80 | |
| 60 " | 2 Pole | SF-352 | 20.70 | |
| 100 " | See 600 Volt | SF-353 | 31.50 | |
| 200 " | Fusible | SF-354 | 52.20 | |
| 400 " | Below | SF-355 | 108.00 | |
| 250-600-600 Not Fusible | | | | |
| 30-60 Amp. | SN-251 | \$13.50 | SN-351 | 15.75 |
| 100 " | SN-252 | 20.70 | SN-352 | 23.85 |
| 200 " | SN-254 | 27.90 | SN-354 | 34.20 |
| 400 " | SN-255 | 51.00 | SN-355 | 90.00 |
| 600 Volts Fusible | | | | |
| 30 Amp. | SF-361 | 16.20 | SF-361 | 19.30 |
| 60 " | SF-362 | 17.10 | SF-362 | 19.80 |
| 100 " | SF-363 | 27.00 | SF-363 | 31.70 |
| 200 " | SF-364 | 42.30 | SF-364 | 48.60 |
| 400 " | SF-365 | 99.00 | SF-365 | 122.00 |
| 600 Volts Not Fusible | | | | |
| 30-60 Amp. | SN-361 | 12.60 | SN-361 | 16.20 |
| 100 " | SN-362 | 20.25 | SN-362 | 24.75 |
| 200 " | SN-364 | 26.50 | SN-364 | 33.75 |
| 400 " | SN-365 | 65.50 | SN-365 | 87.75 |
| 250 Volts Fusible | | | | |
| 30 Amp. | Number | Price | | |
| 60 " | SF-421 | \$ 16.20 | | |
| 100 " | SF-422 | 21.80 | | |
| 200 " | SF-423 | 36.00 | | |
| 400 " | SF-424 | 54.00 | | |
| 500 " | SF-425 | 117.00 | | |
| 500-600 Volts Fusible | | | | |
| 30 Amp. | SF-451 | 24.30 | | |
| 60 " | SF-452 | 26.10 | | |
| 100 " | SF-453 | 41.40 | | |
| 200 " | SF-454 | 33.00 | | |
| 400 " | SF-455 | 139.50 | | |
| 250-500-600 Not Fusible | | | | |
| 30-60 Amp. | SN-451 | 21.60 | | |
| 100 " | SN-453 | 31.50 | | |
| 200 " | SN-454 | 45.00 | | |
| 400 " | SN-455 | 117.00 | | |
| 600 Volts Fusible | | | | |
| 30 Amp. | SF-461 | 28.40 | | |
| 60 " | SF-462 | 25.20 | | |
| 100 " | SF-463 | 39.60 | | |
| 200 " | SF-464 | 59.40 | | |
| 400 " | SF-465 | 144.00 | | |
| 600 Volts Not Fusible | | | | |
| 30-60 Amp. | SN-461 | 21.75 | | |
| 100 " | SN-463 | 29.70 | | |
| 200 " | SN-464 | 43.65 | | |
| 400 " | SN-465 | 120.60 | | |

COMPENSATOR SWITCHES "A"

Bulldog Quick Make & Break Fusible

| Amps. | 250 Volt AC | 3 Pole | 4 Pole | |
|--------|-------------|---------|---------|----------|
| 30 A. | SF221 C | \$16.20 | SF421 C | \$ 21.60 |
| 60 A. | SF222 C | 20.25 | SF422 C | 26.10 |
| 100 A. | SF223 C | 31.50 | SF423 C | 46.80 |
| 200 A. | SF224 C | 45.00 | SF424 C | 64.80 |
| 400 A. | SF225 C | 94.50 | SF425 C | 129.00 |

| Amps. | 500-600 Volts AC | 3 Pole | 4 Pole | |
|--------|------------------|---------|---------|---------|
| 30 A. | SF551 C | \$20.70 | SF451 C | \$32.40 |
| 60 A. | SF552 C | 21.00 | SF452 C | 36.00 |
| 100 A. | SF553 C | 33.75 | SF453 C | 61.20 |
| 200 A. | SF554 C | 50.40 | ..... | ..... |
| 400 A. | SF555 C | 105.60 | ..... | ..... |

MOTOR STARTERS
Bulldog

| | | | |
|--|--------|---------|---------|
| 30 Amp Type C-Porc. Base-110 to 440 Volt | 3 Pole | JM-321S | \$ 6.75 |
| 30 " " C-Slate " 440 & 550 " | 3 Pole | JM-351 | 11.70 |
| 30 " " A 250 Volt | 3 Pole | MF-321 | 17.00 |
| 30 " " A 500 " | 3 Pole | MF-351 | 23.75 |
| 60 " " A 250 " | 3 Pole | MF-322 | 23.50 |
| 60 " " A 500 " | 3 Pole | MF-352 | 28.30 |

4 Pole

NOTE: For Bulldog Switches not listed deduct 10% from Bulldog Lists.

SMALL ENTRANCE SWITCHES
Columbia, 30 Amp.

| 2 Pole | Description | 2 Pole | 3 Pole |
|--------------|----------------------------------|---------|--------|
| Single Fused | Single Blade-125 Volt-Plug Fused | 320-321 | \$1.50 |
| Double " | Double " 125 " " " | 1930 | 1.55 |
| " " | " 250 " " " | 3930 | 1.90 |
| " " | " 250 " Cartridge Fused | 322 | 2.35 |
| " " | " 250 " | 422 | 2.60 |

| 3 Pole | Description | 3 Pole | |
|---|-------------------------|--------|--------|
| Single Fused-Single Blade-125 Volt-Plug Fused | | 1931-3 | \$2.15 |
| Double " | Double " 125 " " " | 3931-2 | 2.45 |
| " " | " 250 " Cartridge Fused | 323 | 4.00 |
| " " | " 250 " | 423 | 4.40 |

BRANCH CIRCUIT ENTRANCE SWITCHES

Columbia

| 30 | 2 | 4 | 6 | 8 |
|--------------|---------|---------|---------|---------|
| Amp. | Circuit | Circuit | Circuit | Circuit |
| 2401 to 2406 | \$3.90 | \$4.90 | \$5.20 | \$5.85 |
| 3401 to 3406 | 4.90 | 6.20 | 6.50 | 7.15 |
| 3501 to 3506 | 4.75 | 5.85 | 6.20 | 7.50 |

Series 30—Quick Break—250 Volts for Meter Trims

| | | | | |
|---------------------|---------|---------|--------------|--------------|
| For Cartridge Fuses | 30 Amp. | 60 Amp. | 100 Amp. | 200 Amp. |
| | 3022 | 5.55 | 3028 \$ 8.75 | 3031 \$18.20 |
| | 3023 | 10.00 | 3029 10.00 | 3032 24.05 |

INDUSTRIAL SWITCHES

Columbia

| Series 70 Type C Fusible | 2 Pole | 3 Pole | | | |
|--------------------------|--------|--------|---------|-------|---------|
| Amps | Number | Price | Number | Price | |
| 250 Volts | 30A | C7001 | \$ 9.30 | C7002 | \$11.30 |
| Fusible | 60A | C7004 | 12.00 | C7005 | 15.50 |
| Quick Make & Break | 100A | C7007 | 18.85 | C7008 | 23.65 |
| | 200A | C7010 | 27.95 | C7011 | 34.65 |

Series 70 Type A Fusible

| 2 Pole | 3 Pole | | | | |
|--------------------|--------|-------|--------|-------|---------|
| Amps | Number | Price | Number | Price | |
| 250 Volts | 30A | A7001 | 10.30 | A7002 | \$12.85 |
| Fusible | 60A | A7004 | 13.10 | A7006 | 17.30 |
| Quick Make & Break | 100A | A7007 | 21.45 | A7008 | 27.50 |
| | 200A | A7010 | 30.50 | A7011 | 38.35 |

Series 71-500 Volts Fusible

| 2 Pole | 3 Pole | | | | |
|--------------------|--------|-------|---------|-------|---------|
| Amps | Number | Price | Number | Price | |
| 500 Volts | 30A | 7101 | \$13.60 | 7102 | \$15.50 |
| Quick Make & Break | 60A | 7104 | 14.00 | 7105 | 16.00 |
| | 100A | 7107 | 23.50 | 7108 | 26.65 |
| | 200A | 7110 | 37.70 | 7111 | 42.25 |

Series 73-500 Volts Unfused

| 2 Pole | 3 Pole | | | | |
|--------------------|--------|-------|---------|-------|---------|
| Amps | Number | Price | Number | Price | |
| 600 Volts | 30A | 7201 | \$14.60 | 7202 | \$16.05 |
| Quick Make & Break | 60A | 7204 | 14.60 | 7205 | 16.00 |
| | 100A | 7207 | 24.10 | 7208 | 27.15 |
| | 200A | 7210 | 38.60 | 7211 | 42.60 |

Series 74-600 Volts Unfused

| 2 Pole | 3 Pole | | | | |
|--------------------|--------|-------|---------|-------|---------|
| Amps | Number | Price | Number | Price | |
| 600 Volts | 30A | 7401 | \$11.70 | 7402 | \$14.35 |
| Quick Make & Break | 60A | 7404 | 12.45 | 7405 | 14.95 |
| | 100A | 7407 | 18.90 | 7408 | 21.45 |
| | 200A | 7410 | 25.15 | 7411 | 20.25 |

Series 20-250 Volts Fusible

| 2 Pole | 3 Pole | | | | |
|------------------|--------|-------|---------|-------|---------|
| Amps | Number | Price | Number | Price | |
| Quick Break Only | 20A | 2022 | \$ 8.75 | 2023 | \$ 6.85 |
| | 60A | 2025 | 6.85 | 2026 | 7.90 |
| 250 Volts | 100A | 2028 | 10.85 | 2029 | 13.35 |
| | 200A | 2031 | 19.10 | 2032 | 23.85 |

Series 23-250-500 Volts Unfused

| 2 Pole | 3 Pole |
| --- | --- |
| Amps | Number | Price | Number | Price |
</tr

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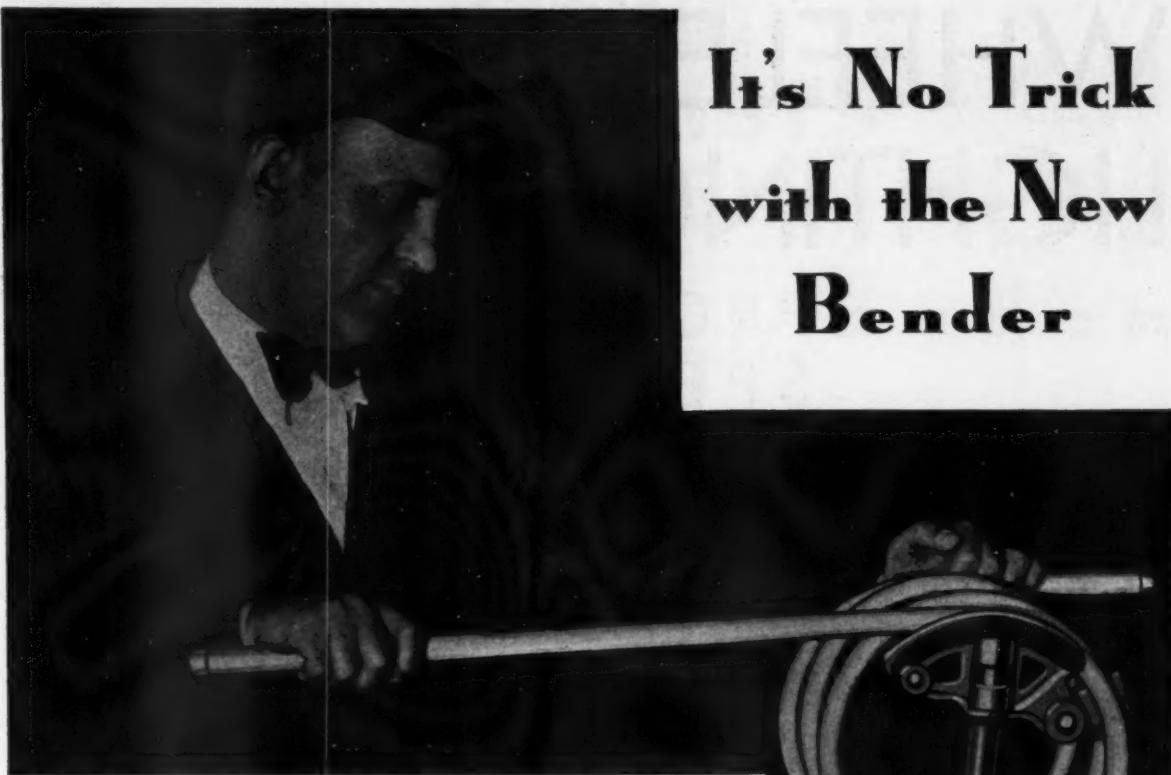
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STEELTUBES is light . . . easy to handle . . . easy to cut . . . no threading . . . and takes any standard fittings.

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Steeltubes



STEELTUBES [E M T.]* has the same inside diameter as heavy conduit. Made in three sizes [$\frac{3}{8}$ ", $\frac{5}{8}$ " and 1"] with diameters and wall thickness shown above. One coupling furnished with each ten-foot length.

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WHEELER REFLECTOR COMPANY, BOSTON, MASS.

NEW YORK



ATLANTA

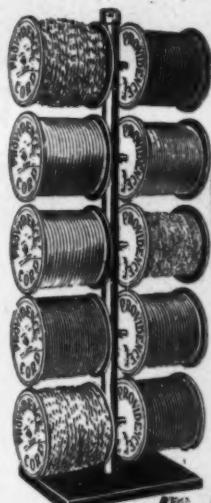


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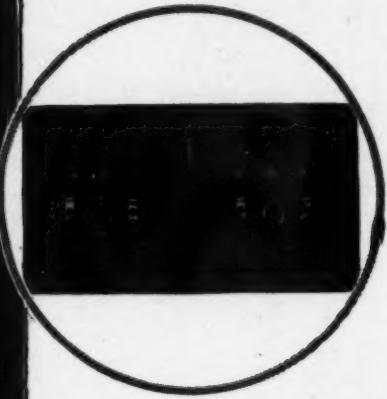
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What do you specialize in?



—*for instance, Theatres*

In order to safeguard the lives of patrons, some states have made it compulsory to have two sources of current supply for theatres.

It is important that the exit, stairway, aisle and corridor lights do not fail.

Therefore, "Diamond H" full automatic Transfer Remote Control Switches are being used in theatres all over the land.

These instantly and automatically switch from main line to emergency in case of failure.

There are many other opportunities for the use of "Diamond H" Switches in theatres, for the control of electric signs, marquee lighting, stage and effect lights and general auditorium lights.

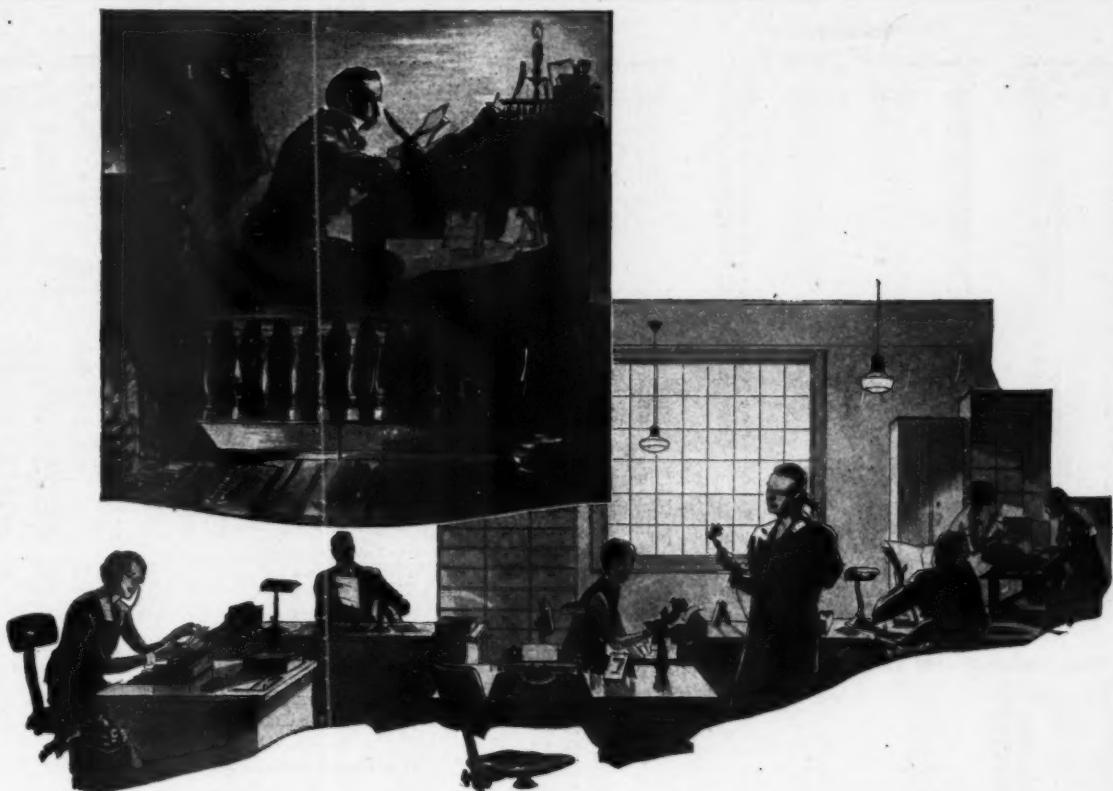
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Send for a copy.

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DIAMOND  SWITCHES



BUSINESS AT FULL SPEED

SPEED, of course, is a purely relative term. Only a little beyond our ken an Atlantic crossing was a hazardous matter of months—now it is a week-end jaunt. Where then communication with Europe was by letter only and occupied weeks of time—today one may lift his telephone receiver and in but a few moments talk with a particular individual across the water!

The gentleman at the slope topped desk, la-

bivorously scratching entries with his quill, probably developed all the speed that his operations required. Since then, however, business has been speeded to the point where, to handle it effectively, the modern office is electrically equipped as to lighting, dictating, telephoning, automatic calculating, ventilating—even as to cleaning. Electricity's part has been vital in the keying of business to this modern pitch.



No. 3961



No. AAr3



No. 792

Bryant's contribution to the modernizing of methods has been in the development of "Superior Wiring Devices" . . . and to such an extent as to build and keep busy continuously for over forty years the largest factory making such devices exclusively.

THE BRYANT ELECTRIC COMPANY^{E4}

BRIDGEPORT
NEW YORK. PHILADELPHIA



CONNECTICUT, U.S.A.
CHICAGO SAN FRANCISCO

MANUFACTURERS OF "SUPERIOR WIRING DEVICES" SINCE 1888—MANUFACTURERS OF HEMCO PRODUCTS

PL-26

S-Sundries

Switches

Wadsworth

| 30 Amp. Switches |  | 30 Amp. Switches |  | 30 Amp. Switches |  | 30 Amp. Switches |
|------------------|--------|------------------|--------|------------------|--------|------------------|--------|
| No. | Price | No. | Price | No. | Price | No. | Price |
| 3 | \$4.90 | 223 | \$2.40 | 1203 | \$3.95 | 2294 | \$6.55 |
| 8 | 1.90 | 224 | 3.00 | 1212 | 4.00 | 2312 | 4.05 |
| 12 | 1.00 | 238 | 3.75 | 1223 | 4.45 | 2323 | 4.25 |
| 15 | 1.25 | 241 | 5.05 | 1250 | 3.30 | 2330 | 9.15 |
| 17 | 3.30 | 242 | 4.70 | 1222 | 4.15 | 2334 | 9.85 |
| 21 | 3.30 | 243 | 5.05 | 1223 | 4.75 | 2351 | 3.80 |
| 25 | 2.20 | 244 | 4.70 | 1401 | 4.10 | 2441 | 6.65 |
| 25T | 3.10 | 271 | 4.00 | 1402 | 3.65 | 2461 | 6.55 |
| 26 | 2.65 | 272 | 4.00 | 1403 | 3.95 | 2462 | 6.20 |
| 27 | 2.50 | 273 | 4.70 | 1401T | 4.60 | 2463 | 6.55 |
| 30 | 1.55 | 274 | 4.40 | 1402T | 4.05 | 2464 | 6.20 |
| 31T | 2.75 | 294 | 4.80 | 1403T | 4.25 | 2534 | 6.75 |
| 33 | 1.65 | 292 | 4.00 | 1411 | 4.50 | 2632 | 3.25 |
| 33T | 2.90 | 294 | 5.35 | 1411T | 5.15 | 2633 | 4.65 |
| 38 | 2.50 | 322 | 6.20 | 1412 | 3.95 | 2639 | 4.65 |
| 39 | 3.75 | 331 | 4.85 | 1412T | 4.35 | 3032 | 11.15 |
| 99 | .10 | 332 | 6.65 | 1423 | 4.40 | 3033 | 12.00 |
| 100 | .10 | 340 | 4.75 | 1423T | 4.85 | 3532 | 9.10 |
| 101 | .50 | 341 | 5.05 | 1450 | 3.30 | 3533 | 10.00 |
| 131 | 3.90 | 350 | 3.20 | 1450T | 3.80 | 3534 | 13.30 |
| 132 | 3.30 | 362 | 4.15 | 1451 | 3.50 | 3539 | 10.00 |
| 133 | 3.90 | 370 | 4.15 | 1451T | 3.95 | 3632 | 16.80 |
| 141 | 4.15 | 372 | 4.55 | 2202 | 4.50 | 3633 | 21.15 |
| 142 | 3.75 | 379 | 4.65 | 2202T | 4.90 | 3634 | 22.05 |
| 143 | 4.15 | 382 | 4.70 | 2203 | 4.50 | 3639 | 21.10 |
| 144 | 4.55 | 392 | 5.05 | 2203T | 4.90 | 5531 | 8.90 |
| 145 | 4.95 | 440 | 6.20 | 2212 | 4.75 | 5532 | 8.45 |
| 151 | 3.40 | 441 | 6.55 | 2212T | 5.15 | 5533 | 9.75 |
| 152 | 3.00 | 443 | 6.55 | 2223 | 4.75 | 5534 | 12.45 |
| 153 | 3.40 | 461 | 6.55 | 2223T | 5.15 | 5539 | 9.75 |
| 164 | 4.45 | 462 | 6.10 | 2230 | 10.40 | 9531 | 15.45 |
| 211 | 4.15 | 463 | 6.55 | 2234 | 11.25 | 9532 | 13.70 |
| 212 | 3.75 | 464 | 6.20 | 2250 | 3.85 | 9533 | 15.45 |
| 213 | 4.15 | 633 | 5.35 | 2250T | 4.25 | 9534 | 17.75 |
| 214 | 3.75 | 734 | 11.15 | 2251 | 3.85 | 9539 | 15.45 |
| 221 | 2.65 | 1013 | 4.20 | 2251T | 4.25 | 9862 | 8.45 |
| 222 | 3.00 | 1014 | 0.10 | 2284 | 6.20 | 9863 | 8.90 |
| | | 1202 | 3.65 | | | 9864 | 13.90 |

Wadsworth

| 60 Amp. Switches | | 100 Amp. Switches | | 200 Amp. Switches | | 400 Amp. Switches | |
|------------------|---------|-------------------|---------|-------------------|---------|-------------------|-------|
| No. | Price | Number | Price | Number | Price | Number | Price |
| 6 | \$10.45 | 10 | \$12.15 | 20 | \$16.20 | | |
| 101 | 9.60 | 102 | 15.70 | 522 | 19.80 | | |
| 162 | 9.15 | 110 | 16.55 | 523 | 24.95 | | |
| 163 | 11.50 | 111 | 16.55 | 722 | 37.05 | | |
| 171 | 9.35 | 112 | 15.70 | 723 | 51.90 | | |
| 172 | 9.15 | 113 | 18.95 | 724 | 57.35 | | |
| 508 | 11.45 | 513 | 17.25 | 729 | 52.00 | | |
| 1024 | 13.30 | 1033 | 11.55 | 1042 | 14.20 | | |
| 1762 | 16.30 | 1034 | 16.50 | 1043 | 22.00 | | |
| 1763 | 22.75 | 1712 | 27.35 | 1044 | 31.35 | | |
| 1764 | 21.45 | 1713 | 35.40 | 2622 | 18.15 | | |
| 1769 | 21.70 | 1714 | 35.00 | 2623 | 21.45 | | |
| 1800 | 15.70 | 1719 | 30.90 | 2624 | 40.85 | | |
| 1802 | 16.55 | 1900 | 24.35 | 2629 | 19.80 | | |
| 1803 | 17.40 | 1902 | 25.20 | 2812 | 11.55 | | |
| 1812 | 17.40 | 1903 | 26.10 | 2813 | 14.65 | | |
| 1830 | 19.10 | 1912 | 26.10 | 2819 | 13.90 | | |
| 1834 | 20.90 | 1930 | 28.70 | 3212 | 10.20 | | |
| 1842 | 17.40 | 1934 | 30.50 | 3213 | 11.55 | | |
| 1843 | 18.25 | 1942 | 26.10 | 3522 | 27.20 | | |
| 1851 | 16.55 | 1943 | 27.90 | 3523 | 31.15 | | |
| 9030 | 15.65 | 1951 | 28.10 | 3524 | 43.15 | | |
| 2034 | 17.40 | 2130 | 25.20 | 3529 | 31.15 | | |
| 2042 | 16.70 | 2134 | 26.95 | 3622 | 41.60 | | |
| 2043 | 16.65 | 2142 | 24.40 | 3623 | 47.35 | | |
| 2051 | 14.80 | 2143 | 26.10 | 3624 | 53.20 | | |
| 2064 | 13.80 | 2151 | 24.40 | 3629 | 47.35 | | |
| 2861 | 8.45 | 2614 | 25.60 | 4603 | 54.45 | | |
| 2862 | 8.00 | 3512 | 14.65 | 4643 | 59.40 | | |
| 2863 | 9.30 | 3513 | 17.75 | 4630 | 59.75 | | |
| 3162 | 15.95 | 3519 | 17.75 | 4734 | 49.75 | | |
| 3163 | 17.75 | 3612 | 24.85 | 4743 | 44.50 | | |
| 3262 | 8.00 | 3613 | 31.95 | | | | |
| 3263 | 8.45 | 3614 | 35.90 | | | | |
| 3562 | 9.75 | 3619 | 31.95 | 642 | 55.45 | | |
| 3563 | 11.55 | 8511 | 14.65 | 643 | 67.65 | | |
| 3564 | 13.75 | 8512 | 12.45 | 742 | 61.65 | | |
| 3569 | 11.55 | 8513 | 15.55 | 743 | 75.15 | | |
| 3662 | 17.05 | 8514 | 27.50 | 744 | 91.30 | | |
| 3663 | 22.06 | 8519 | 15.55 | 749 | 75.15 | | |
| 3664 | 24.00 | 9511 | 29.30 | 1032 | 36.30 | | |
| 3669 | 23.05 | 9512 | 24.85 | 1058 | 47.85 | | |
| 8561 | 9.30 | 9513 | 29.30 | 1054 | 66.00 | | |
| 8562 | 8.90 | 9514 | 39.00 | 2542 | 49.50 | | |
| 8563 | 10.20 | 9519 | 29.30 | 2549 | 61.00 | | |
| 8564 | 14.20 | 9812 | 10.65 | 2544 | 66.65 | | |
| 8569 | 10.20 | 9813 | 12.00 | 3542 | 54.45 | | |
| 9561 | 18.55 | 9814 | 21.45 | 3543 | 78.40 | | |
| 9562 | 14.65 | | | 3544 | 94.05 | | |
| 9563 | 18.55 | | | 3549 | 78.35 | | |
| 9564 | 23.25 | | | 4803 | 99.00 | | |
| 9569 | 18.55 | | | 4820 | 129.35 | | |
| | | | | 4834 | 137.55 | | |
| | | | | 4843 | 112.20 | | |
| | | | | 4934 | 113.00 | | |
| | | | | 4943 | 101.00 | | |

EXTRA END WALLS—SHUTTERS—TRIMS—ETC.

Wadsworth

| Flat | | Extended | | Shutter | | Knock-out & Shutter | |
|-------------------------------|---------|----------|---------|---------|---------|---------------------|-------|
| Type of Trim | Shutter | Shutter | Shutter | Shutter | Shutter | Shutter | Meter |
| For 30 Amp. 125 Volt Switches | \$.30 | \$.50 | \$.30 | \$.30 | \$.17 | | |
| " 30 " 250 " | .65 | .65 | .50 | .35 | .15 | | |
| " 60 " 250 " | .75 | .90 | .75 | .50 | .25 | | |
| " 60 " 250 " | .75 | .90 | .75 | .50 | .25 | | |
| " 100 " 250 " | .82 | 1.00 | .82 | .45 | .25 | | |
| " 100 " 250 " | .90 | 1.10 | .90 | .50 | .25 | | |
| " 200 " 250 " | 1.00 | 1.15 | 1.00 | .50 | .25 | | |
| " 200 " 250 " | 1.10 | 1.25 | 1.10 | .55 | .25 | | |

Murray Switches

| With End Wall | | Without End Walls | | ENTRANCE SWITCHES | | | |
|---------------|---------|----------------------------------|-----|-------------------|-----|----------|--|
| Amps. | Volts | Description | No. | Price | No. | Price | |
| 30 | 125 | For Plug Fuses 1 Blade 1 Fuse | 630 | \$ 1.50 | ... | ... | |
| 30 | 125 | " " " 2 " 2 " | 231 | 1.65 | 230 | \$ 2.25 | |
| 30 | 125-250 | For 2 Cartridge Fuses | ... | ... | 831 | \$ 2.10 | |
| 60 | 250 | For 3 Cart. Fuses-3 Phase-3 Wire | ... | ... | 710 | \$ 29.05 | |
| 60 | 250 | " " " 3 " 3 " 3 " | 712 | 29.95 | 712 | \$ 29.95 | |
| 200 | 250 | " " " 3 " 3 " 3 " | 720 | 60.75 | 720 | \$ 60.75 | |
| 200 | 250 | " " " 3 " 3 " 3 " | 722 | 68.85 | 722 | \$ 68.85 | |

| Without End Walls | | ACCESIBLE MAIN FUSE SWITCHES | | |
|-------------------|------|------------------------------|--------|---------|
| Meter Test | Type | 2 Pole | 3 Pole | |
| 30 | 125 | For Plug Fuses One Fuse | 755 | \$ 3.65 |
| 30 | 125 | " " " 2 & 3 Fuse | 748 | 3.95 |
| 30 | 250 | Cart. " One Fuse | 738 | 4.20 |
| 30 | 250 | " " " Two Fuse | 737 | 4.85 |
| 60 | 250 | " " " For 1 Fuse | 766 | 15.95 |
| 60 | 250 | " " " For 2 Fuse | 764 | 16.85 |
| 100 | 250 | " " " For 2 Fuses | 718 | 25.60 |

| Without End Walls | | "UNISAFI" | |
|-----------------------------------|------|-----------|----------|
| (Universal Standardized Switches) | | | |
| Number | Pole | Fuse | Neutral |
| 234 | 2 | Single | 1-2-Wire |
| 235B | 2 | " | 2 Fuses |
| 236 | 2 | " | 2 Fuses |
| 237 | 3 | Two: | Solid |
| 237 | 3 | " | 2 Fuses |
| 238 | 3 | " | Solid |
| 238 | 2 | " | 2 Fuses |
| 238 | 2 | " | 2 Fuses |

| Without End Walls</th |
|-----------------------|
|-----------------------|

Switches**Diamond E Switches****SMALL ENTRANCE SWITCHES, 30 AMPS.**

| Volts | For Fuses | Description | 2 Pole | 3 Pole |
|-------|-----------|----------------|--------|--------|
| 125 | Plug | All Fused | P-2 | \$1.65 |
| 125 | Plug | Ground Neutral | P-2S | 1.65 |
| 250 | Cartridge | All Fused | C-2 | 2.25 |
| 250 | Cartridge | Ground Neutral | .... | 4.00 |
| | | | | C-3S |
| | | | | 2.90 |

ALL-N-ONE SWITCHES

| Live Front No. | Double Fuse Circuits | Dead Front No. | Single Fuse Circuits | Price |
|-------------------|-------------------------|-------------------|-------------------------|---------|
| A-2 | 2 | AD-3 | 3 | \$ 5.40 |
| A-3 | 3 | AD-4 | 4 | 5.85 |
| A-5 | 5 | AD-5 | 5 | 6.75 |
| A-7 | 7 | AD-6 | 6 | 7.95 |
| A-9 | 9 | AD-8 | 8 | 9.30 |
| | | AD-10 | 10 | 11.25 |

RANGE & WATER HEATER SWITCHES

60 Amp.—125 Volts

| No. 501 | No. 502 | No. 503 | No. 504 | No. 505 | No. 506 | No. 507 |
|---------|---------|---------|---------|---------|---------|---------|
| \$8.90 | \$15.25 | \$23.60 | \$26.75 | \$32.25 | \$8.90 | \$13.90 |

MOTOR STARTING SWITCHES

| | |
|--|--------|
| MS-1 30 Amp. 3 Pole 220 Volts Quick Make & Break Toggle..... | \$6.00 |
| C-8P 30 Amp. 3 Pole 250 Volts Not Toggle..... | 7.10 |

SAFE LINE SERVICE SWITCHES

| | |
|--|--------|
| No. 904 Single Pole 4 Circuits with Transformer..... | \$7.85 |
| " " " without Transformer..... | 6.60 |

INDUSTRIAL TYPE**Quick Break—Single Throw—Fused Bottom**

| 250 Volts | | | | |
|-------------|---------|---------|----------|----------|
| Amp. | No. | Price | No. | Price |
| 30 | 3022 | \$ 5.40 | 3022 | \$ 6.75 |
| 60 | 6022 | 8.10 | 6032 | 9.00 |
| 100 | 10022 | 11.65 | 10032 | 13.30 |
| 200 | 20022 | 18.25 | 20032 | 24.10 |
| 400 | 40022 | 44.85 | 40032 | 61.50 |
| 600 | 60022 | 78.00 | 60032 | 91.30 |
| 300 Volts | | | | |
| 30 | 3025 | \$ 9.00 | 3035 | \$ 8.55 |
| 60 | 6025 | 9.90 | 6035 | 10.80 |
| 100 | 10025 | 13.30 | 10035 | 15.80 |
| 200 | 20025 | 26.60 | 20035 | 30.00 |
| 400 | 40025 | 68.00 | 40035 | 74.70 |
| 600 | 60025 | 95.30 | 60035 | 103.00 |
| 600 Volts | | | | |
| Amps..... | 30 Amp. | 60 Amp. | 100 Amp. | 200 Amp. |
| Number..... | 3026 | 6026 | 10026 | 20026 |
| Price..... | \$15.30 | \$15.80 | \$25.00 | \$38.60 |

Not Fused—Quick Break

| Amps. | Pole | Single Throw—No Fuse | | Double Throw—No Fuse | | |
|-------|------|----------------------|--------|----------------------|---------|----------|
| | | Volts | Number | Price | Number | |
| 30 | 2 | 250 DC | 3022N | \$ 5.00 | 3022DN | \$ 10.80 |
| 30 | 3 | 250 DC | 3032N | 6.30 | 3032DN | 12.45 |
| 30 | 2 | 500 AC | 3025N | 8.65 | 3025DN | 13.15 |
| 30 | 3 | 500 AC | 3035N | 8.10 | 3035DN | 16.60 |
| 60 | 2 | 250-500 | 6025N | 8.10 | 6025DN | 13.15 |
| 60 | 3 | 250-500 | 6035N | 8.55 | 6035DN | 16.60 |
| 100 | 2 | 250-500 | 10025N | 11.50 | 10025DN | 24.90 |
| 100 | 3 | 250-500 | 10035N | 11.25 | 10035DN | 30.70 |
| 200 | 2 | 250-500 | 20025N | 17.00 | 20025DN | 34.85 |
| 200 | 3 | 250-500 | 20035N | 20.75 | 20035DN | 50.60 |
| 400 | 2 | 250-500 | 40025N | 49.80 | 40025DN | 99.60 |
| 400 | 3 | 250-500 | 40035N | 58.00 | 40035DN | 132.80 |
| 600 | 2 | 250-500 | 60025N | 83.00 | 60025DN | 141.00 |
| 600 | 3 | 250-500 | 60035N | 99.60 | 60035DN | 163.50 |

S-SUNDRIES**WOOD SCREWS****Flat Head**

| Size | Price Per Doz. | Price Per Size | Price Per Doz. | Size | 1 1/2" x 12 | 1 1/2" x 6 | 1 1/2" x 8 | 1 1/2" x 10 | 2" x 6 | 2" x 8 | 2" x 10 | 2" x 12 | 2" x 16 | 2" x 18 | 2" x 20 | 2" x 24 | 2" x 30 | |
|----------------------|----------------------|----------------------|----------------------|-------------|-------------|------------|------------|-------------|---------|--------|---------|---------|---------|---------|---------|---------|---------|-----|
| | | | | | .05 | .05 | .05 | .07 | .05 | .05 | .05 | .05 | .05 | .05 | .05 | .05 | .05 | |
| 1 1/2" x 6 & Smaller | .05 | .05 | .05 | 1 1/2" x 12 | .05 | .05 | .05 | .07 | 2" x 10 | .05 | .05 | .05 | .05 | .05 | .05 | .05 | .05 | .05 |
| 1 1/2" x 8 | .05 | .05 | .05 | 1 1/2" x 6 | .05 | .05 | .05 | .07 | 2" x 12 | .05 | .05 | .05 | .05 | .05 | .05 | .05 | .05 | .05 |
| 1 1/2" x 10 | .05 | .05 | .05 | 1 1/2" x 8 | .05 | .05 | .05 | .07 | 2" x 16 | .05 | .05 | .05 | .05 | .05 | .05 | .05 | .05 | .05 |
| 1 1/2" x 12 | .05 | .05 | .05 | 1 1/2" x 10 | .05 | .05 | .05 | .07 | 2" x 18 | .05 | .05 | .05 | .05 | .05 | .05 | .05 | .05 | .05 |
| 1" x 10 | .05 | .05 | .05 | 1 1/2" x 12 | .05 | .05 | .05 | .07 | 2" x 20 | .05 | .05 | .05 | .05 | .05 | .05 | .05 | .05 | .05 |
| 1" x 8 | .05 | .05 | .05 | 2" x 6 | .05 | .05 | .05 | .07 | 2" x 12 | .05 | .05 | .05 | .05 | .05 | .05 | .05 | .05 | .05 |
| 1" x 10 | .05 | .05 | .05 | 2" x 8 | .05 | .05 | .05 | .07 | 2" x 16 | .05 | .05 | .05 | .05 | .05 | .05 | .05 | .05 | .05 |
| 1" x 12 | .05 | .05 | .05 | 2" x 10 | .05 | .05 | .05 | .07 | 2" x 18 | .05 | .05 | .05 | .05 | .05 | .05 | .05 | .05 | .05 |
| 1" x 16 | .06 | .06 | .06 | 2" x 12 | .05 | .05 | .05 | .07 | 2" x 20 | .05 | .05 | .05 | .05 | .05 | .05 | .05 | .05 | .05 |
| 1" x 18 | .06 | .06 | .06 | 2" x 16 | .05 | .05 | .05 | .07 | 2" x 24 | .05 | .05 | .05 | .05 | .05 | .05 | .05 | .05 | .05 |
| 1" x 20 | .07 | .07 | .07 | 2" x 18 | .05 | .05 | .05 | .07 | 2" x 30 | .05 | .05 | .05 | .05 | .05 | .05 | .05 | .05 | .05 |

NOTE—For Round Head Wood Screws Add 30% to above prices.

MACHINE SCREWS
Round or Flat Head

| Size | Price per Dozen |
|--------------|-----------------|
| 1/2" x 1/2 | .05 |
| 1/2" x 1/4 | .05 |
| 1/2" x 3/8 | .05 |
| 1/2" x 1 | .05 |
| 1/2" x 1 1/2 | .05 |
| 1/2" x 2 | .05 |
| 1/2" x 3 | .05 |
| 1/2" x 4 | .05 |
| 1/2" x 5 | .05 |
| 1/2" x 6 | .05 |
| 1/2" x 7 | .05 |
| 1/2" x 8 | .05 |
| 1/2" x 9 | .05 |
| 1/2" x 10 | .05 |
| 1/2" x 11 | .05 |
| 1/2" x 12 | .05 |
| 1/2" x 13 | .05 |
| 1/2" x 14 | .05 |
| 1/2" x 15 | .05 |
| 1/2" x 16 | .05 |
| 1/2" x 17 | .05 |
| 1/2" x 18 | .05 |
| 1/2" x 19 | .05 |
| 1/2" x 20 | .05 |
| 1/2" x 21 | .05 |
| 1/2" x 22 | .05 |
| 1/2" x 23 | .05 |
| 1/2" x 24 | .05 |
| 1/2" x 25 | .05 |
| 1/2" x 26 | .05 |
| 1/2" x 27 | .05 |
| 1/2" x 28 | .05 |
| 1/2" x 29 | .05 |
| 1/2" x 30 | .05 |
| 1/2" x 31 | .05 |
| 1/2" x 32 | .05 |
| 1/2" x 33 | .05 |
| 1/2" x 34 | .05 |
| 1/2" x 35 | .05 |
| 1/2" x 36 | .05 |
| 1/2" x 37 | .05 |
| 1/2" x 38 | .05 |
| 1/2" x 39 | .05 |
| 1/2" x 40 | .05 |
| 1/2" x 41 | .05 |
| 1/2" x 42 | .05 |
| 1/2" x 43 | .05 |
| 1/2" x 44 | .05 |
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| 1/2" x 80 | .05 |
| 1/2" x 81 | .05 |
| 1/2" x 82 | .05 |
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| 1/2" x 85 | .05 |
| 1/2" x 86 | .05 |
| 1/2" x 87 | .05 |
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| 1/2" x 89 | .05 |
| 1/2" x 90 | .05 |
| 1/2" x 91 | .05 |
| 1/2" x 92 | .05 |
| 1/2" x 93 | .05 |
| 1/2" x 94 | .05 |
| 1/2" x 95 | .05 |
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| 1/2" x 100 | .05 |
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| 1/2" x 102 | .05 |
| 1/2" x 103 | .05 |
| 1/2" x 104 | .05 |
| 1/2" x 105 | .05 |
| 1/2" x 106 | .05 |
| 1/2" x 107 | .05 |
| 1/2" x 108 | .05 |
| 1/2" x 109 | .05 |
| 1/2" x 110 | .05 |
| 1/2" x 111 | .05 |
| 1/2" x 112 | .05 |
| 1/2" x 113 | .05 |
| 1/2" x 114 | .05 |
| 1/2" x 115 | .05 |
| 1/2" x 116 | .05 |
| 1/2" x 117 | .05 |
| 1/2" x 118 | .05 |
| 1/2" x 119 | .05 |
| 1/2" x 120 | .05 |
| 1/2" x 121 | .05 |
| 1/2" x 122 | .05 |
| 1/2" x 123 | .05 |
| 1/2" x 124 | .05 |
| 1/2" x 125 | .05 |
| 1/2" x 126 | .05 |
| 1/2" x 127 | .05 |
| 1/2" x 128 | .05 |
| 1/2" x 129 | .05 |
| 1/2" x 130 | .05 |
| 1/2" x 131 | .05 |
| 1/2" x 132 | .05 |

Levolier

The Little Giant of Switches

The Levolier Switch is a giant for strength and endurance. It has **twice** the carrying capacity of any switch its size. The most practical six Ampere Pull Switch made, yet easily takes the knockout smash of repeatedly switching 500 Watt Gas Filled Lamps.

The Levolier Switch is made with stems of three different sizes, and with a plain lever without chain for brackets and appliances. It is also made for use in chain fixtures.

*Send for your copy of the
McGill catalog, "Electrical
Fixtures of Quality"*



6 AMP.
No. 61



6 AMP.
No. 62



MCGILL
MANUFACTURING CO.
Electrical Specialties of Quality
ESTABLISHED 1004
VALPARAISO - INDIANA



New Detroit License Law

A new licensing ordinance has been adopted by Detroit which provides for licenses for electrical contractors and for fixture houses. Where contractors also have fixture departments they must have two licenses. It calls for a \$1,000 bond for each license and a fee of \$10.00 for the first year and \$5.00 renewal.

The law also covers the licensing of journeymen with a fee of \$1.00 per year. Applicants for journeymen's license must take an examination, which may be either oral or written.

* * *

Analyze Questionnaire on "Sub-Standard"

An analysis of the questionnaire on the definition of "sub-standard" sent out by the Metropolitan Electrical League of Boston, as reported in the March issue of ELECTRICAL CONTRACTING, shows that 36 per cent believed approval by a recognized testing laboratory constituted an acceptable standard for all electrical material; 26 per cent believed approval of Underwriters' Laboratories, Inc., the acceptable standard; 16 per cent that the requirements of the local municipal departments constituted acceptable workmanship and 10



DEPARTMENTAL CO-OPERATION THIS COMPANY'S WATCH-WORD:—Jacobe Bros., Houston, Tex., attribute the firm's success in large work and important lighting installations to the close co-operation between departments. In other words, they believe in letting the right hand know what the left is doing every minute of the day. In this picture we have L. R. McKeag, lighting specialist, on the left, with B. F. Kohlhausen, engineer in charge of all construction, at the right. In the center is W. B. Marshall, engineer of the Bace Construction Co., builders of the Sterling Properties Building, wired by Jacobe Bros. The picture was taken on the job.

*as big
as you are*



HERE'S an opportunity to make your business big . . . just as big as you are.

Over fifty virgin fields, waiting for you to develop them. All are clamoring for the installation of complete audio reproduction systems. If you, sir, are a competent electragist then here's your chance. A golden opportunity to succeed. The chance to obtain a distributor-contractor franchise embracing territorial protection in this new and undeveloped field.

We, one of the oldest and most experienced organizations in the manufacture and installation of audio engineering equipment in the world, will help you. Send for your copy of "Amplified Opportunities."

RADIO RECEPTOR CO., Inc.

108B Seventh Avenue, New York City

Licensed by Radio Corporation of America
and Associated Companies

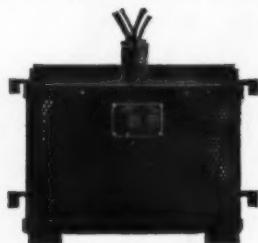
List of Markets

| | | |
|-------------|---------------|-------------------|
| Hotels | Fair Grounds | Dance Halls |
| Theatres | Skating Rinks | Amusement Parks |
| Schools | Hospitals | Apartment Houses |
| Stadiums | Civic Centers | Railway Terminals |
| Steam Ships | Restaurants | Excursion Boats |

(E.C.-4-30)

POWERIZER SOUND SYSTEMS

Standard
MILL
AND
FACTORY
LIGHTING AND SMALL POWER
TRANSFORMERS



For Indoor Service
Type MD



For Outdoor Service
Type MO

A COMPLETE LINE

Transformers shown are especially adapted for use in mills, factories, mines, office buildings, apartment buildings . . . in fact, any place where inductively coupled high efficiency moderate capacity is required. Compound filled, Air filled, Oil filled. Highest quality. A profitable line for you to concentrate on. Mail coupon today.

**"STANDARDIZE
WITH
STANDARD"**

The STANDARD TRANSFORMER CO.
WARREN, OHIO

Gentlemen: Kindly send me bulletins describing and illustrating your complete line of "Standard" Transformers.

NAME.....

ADDRESS.....

CITY..... STATE.....



NEW ORLEANS ASSOCIATION PROGRESSING:—The New Orleans Electrical Contractors Association, with offices at 517 Baronne St., which was organized a year ago by the house wiring and smaller contractors is getting strongly established. The officers are J. Cooney, president; L. J. James, vice president, and F. J. Bellott, secretary-treasurer. The executive board consists of E. G. Haro, chairman, J. M. Ritson, V. S. Torres, H. Rocker, E. M. Charles and G. A. Gause. The accompanying photograph shows, left to right, Messrs. Haro, Gause and Bellott.

per cent stated that the requirements of the National Electrical Code constituted an accepted standard of workmanship.

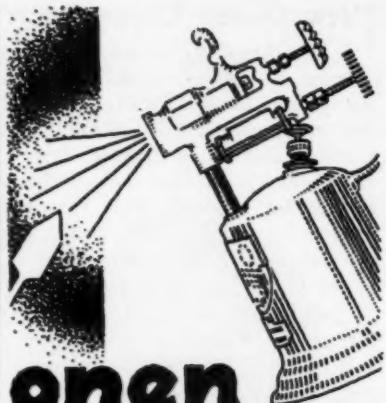
These replies represented a cross section of the local electrical industry, and included replies from manufacturers, contractor-dealers, municipal inspectors, sales agents, utility men, wholesalers and others.

* * *

Case Heads Quality Electric Works

A syndicate comprised of a number of prominent electrical men in southern California, and headed by J. O. Case, former assistant local manager of the General Electric Company, Los Angeles division, has just taken over the interests of A. W. Wotkyns in the Quality Electric Works, Los Angeles, a pioneer industrial contracting firm. Mr. Wotkyns sold his interests, he announced, in order to rest and regain his health.

Under the newly formed company Mr. Case becomes president and general manager of Quality Electric Works. J. B. Martin, vice president with the former organization, retains that position. G. E. Decker becomes secretary and treasurer. In addition to the officers on the board of directors J. M. Bowden continues as director, J. G. Monahan is also a director and representing the syndicate as trustees O. H. Ensign and R. E. Cunningham are also directors.



**open
I season
FOR REPAIRS
Is Saving Season
with A TURNER**

The electrical industry is at present active with repair work. The contractor who uses a Turner No. 35 Blotorch is saving more time now than ever before.

The No. 35 Turner is generated in one-fifth of the time required to generate an ordinary blow torch. The working blast can be turned on and off at will. The No. 35 operates very satisfactorily when exposed to wind or rain. That makes it all the more desirable for the electrician who frequently has to work out of doors.

Send Coupon for Catalog

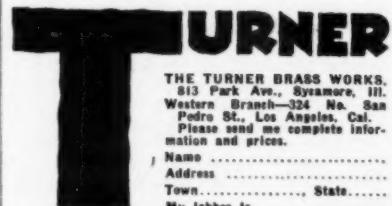
By filling in and returning the coupon attached hereto, you will receive the Turner catalog. This catalog displays the full line of blotorches and firepots.



TURNER GASOLINE
NO 35

The electrician who inspects the No. 35 Turner wants one. It has no drip cup. A patented generator delivers an intense blue flame to the undervein. Its generator acts as a pilot light when the working blast has been turned off.

The Turner No. 35 is a time saver on all occasions. Send coupon attached hereto for your catalog and your discounts.



Rural Inspection for Youngstown

Through cooperation of the entire electrical industry, according to a report from the Electrical Association of Youngstown, the Ohio Inspection Bureau has appointed an inspector for the rural territory surrounding Youngstown and served by the local public utility.

This overcomes a handicap which the contractors were put to when figuring on an installation outside of the city due to the fact that the Youngstown inspection department enforced the National Electrical Code. While this inspection, which makes for better wiring in the rural districts, has been in operation since January 1 it was not made mandatory until March 1.

* * *

Akron Contractors Study Estimating

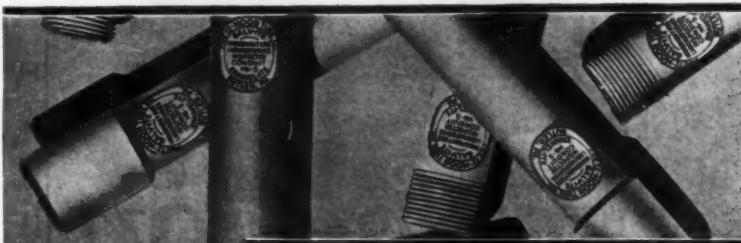
A study is being made by the Akron Electrical Contractors' Association of the Electragist Manual of Estimating for conduit work. In order to present the facts properly to the group, actual time on three jobs has been checked with estimated time in the Electragist Manual.

Another important phase of the work of this association is the forming of an Allied Credit Construction Bureau by all branches of the building construction industry. A full



MOTOR REPAIR AND REMODELING HIS SPECIALTY:—Fred Mahaffey, Houston, Texas, has built up a substantial business on the strength of a large and unique stock of "spare parts" for motors that are no longer made, and on men who know just how to do the work. Incidentally he is one of the real old timers in contracting. Mr. Mahaffey is in the center, with Messrs. Moses and Kazarian on his right and left, respectively.

Fretz-Moon



◆ A PROFIT ON EVERY JOB

There are two ways to identify Fretz-Moon Conduit—by the orange and black label, and by the perfect threads and the glass-like raceway that save you time and increase your profits on every job. Specify Fretz-Moon Conduit—black or galvanized—on your next order and see the difference on your profit statement.

FRETZ-MOON TUBE COMPANY, INC.
BUTLER, PA.



RIGID CONDUIT



10 Points of Perfection

in the Benco Socket

- 1—Metal Protection—an armor against wear and weather.
- 2—Highly Insulated with Porcelain—covered by the metal armor.
- 3—Easy to Wire—safe and permanent.
- 4—Threaded for Quick and Easy Assembly—speeds up lamp and reflector cleaning.
- 5—Thoroughly Weather-proof.
- 6—Lamps cannot shake loose under vibration.
- 7—Of good appearance—in copper, brass or aluminum.
- 8—Keyless or Pull-Chain Control—chain comes straight down inside the socket and reflector.
- 9—Long Service—the best quality always proves to be the cheapest.
- 10—Made by Benjamin and therefore a Good Product.

Our nearest office will gladly furnish full information on Benco Sockets and Benco Threaded Accessories.

Benjamin Electric Mfg. Co.

General Offices and Factory
DES PLAINES, ILL.
(Chicago Suburb)

New York

Chicago

San Francisco

BENJAMIN

TRADE MARK


HOTEL WIRING AND LIGHTING SPECIALISTS:—The Bunn Electrical Engineering Co., Inc., New Orleans, La., lives up to its name by tackling large jobs, especially hotels, which require real engineering. On the left is Walter J. Barnes, young in years, but with a varied experience. O. L. Bunn, head of the company, has been in the business long enough to be well known to all the trade. They have an exceptionally well-equipped office and shop and a competent crew.

time secretary has been employed and it is expected to have the plan in operation by April 15.

J. W. Kinnan, who is retiring from the electrical business, has resigned as director and treasurer of the association. H. H. Hoisington, of the Akron Motor & Generator Co., was elected director for the remainder of the unexpired term and R. J. Dreese, of the Dreese Electric Co., was appointed treasurer.

* * *

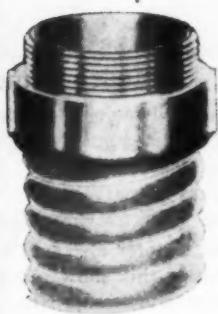
To Hold Iowa Convention in May at Waterloo

Earl N. Peak of Marshalltown, Ia., president of the Iowa Association of Electrical Contractors and Dealers, has announced May 18, 19 and 20 as the dates for the association's next convention to be held in Waterloo at the Hotel President. Clarence Nagel and A. C. Sweetman of Waterloo, chairmen of the local committees on program and arrangements, have made preparations for the largest and most interesting state meeting of contractors and dealers yet held in Iowa.

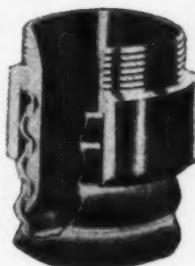
Mr. Peak, who is also vice-president of the Association of Electrification, International, reports preliminary work already well advanced in

WIRING SPECIALISTS

GO FOR
THE



"JAKE"
in a big way
**FLEXIBLE
CONDUIT
CONNECTOR**



Approved by
Underwriters
Laboratories

SAVES TIME—INCREASES SAFETY

The "JAKE" CONNECTOR for installations where flexible metallic conduit is used has many superior advantages. . . . Grips firmly and automatically locks the conduit without damaging pressure. . . . Will not come loose, regardless of strain or vibration. . . . Makes it possible for flexible conduit to be joined to rigid, without the necessity of a junction box. . . . All ragged edges of the conduit are completely covered by the "JAKE" CONNECTOR. . . .

Impossible for water or oil running down the outside of the conduit to enter the box. The "JAKE" gives every installation a neat and fully finished appearance. Cuts installation costs, increases safety and makes it possible to use flexible conduit for more jobs. . . . "JAKE" CONNECTORS are made in $\frac{1}{2}$ " to $\frac{3}{4}$ " sizes, malleable iron or brass. Order today from your jobber, or write us direct, giving us his name.

Mail Coupon Today for **FREE SAMPLE**

HUNTER-WALKER CO., Inc.

1421 Chestnut St. or Electric Building
Philadelphia, Pa. or Houston, Texas

Gentlemen: Without obligation on my part, please send me free sample of The "JAKE" CONNECTOR.

Name..... Address.....

City..... State.....

*Write to-day for ^{your} copies
of these bulletins and
have complete sales &
installation data on
telephone systems at
your finger tips.*

S. H. COUCH COMPANY, Inc.
NORFOLK DOWNS, MASS.

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| BOSTON: 170 Purchase St. Detroit: 1444 Park Place Cleveland: 14259 Superior Rd. Denver: 1718 California St. New York: 487 Broadway (Canal 0084) Montreal: Franke, Levasseur & Co., Ltd. | PHILADELPHIA: 1725 Sansom St. Dallas: 2205 Leonard St. Atlanta: Bona Allen Bldg. Tampa: 114 W. Alfred St. San Francisco, Los Angeles, Portland and Seattle: Sierra Equipment Corp. Toronto: Canadian Telephones & Supplies Co., Ltd. | CHICAGO: 809 W. Jackson Blvd. St. Louis: 917A Pine St. Omaha: 404 Merchants Nat'l Bank Bldg. Asheville: P. O. Box 1892 |
|--|---|---|

**MANUFACTURERS OF DROP AND LAMP TYPE ANNUNCIATORS,
PRIVATE TELEPHONE SYSTEMS, AND PUSH BUTTONS**

the organization of a number of district Electragist Chapters in Iowa, and it is expected these groups will complete their affiliation and receive their charters as A. E. I. Chapters prior to the state convention.

* * *

Plan Red Seal House Wiring Campaign

One of the most important things planned for 1930 by the Electric League of Lafayette, Ind., is a Red Seal house wiring campaign. Plans for this campaign will be made at an early date.

* * *

Milwaukee Electragists Wire Model Home

The Milwaukee Chapter of Electragists wired and equipped a model home, according to Red Seal standards, as a part of the Milwaukee Home Show during March.

The chapter also had an electrical exhibit at this show. A new feature of the show was the centralized electrical section with all electrical displays grouped in one location, without magnifying the importance of any one electrical booth.

* * *

N.E.M.A. Disapproves Kelly-Capper Bill

The Kelly-Capper Bill as now amended has after careful study been disapproved by the law committee and the board of governors of the National Electrical Manufacturers' Association.

The original bill on maintenance of resale prices as first offered in April, 1929, was investigated and approved. Since that time the bill has been amended.

The reasons given for the disapproval of the amended bill by the association's board and law committee are as follows:

"1. The Kelly-Capper Bill was formally approved by the board of governors because it intended to provide, and did provide, for complete resale price maintenance, that is, from manufacturer to the ultimate seller to the consumer, and was concerned solely with resale price maintenance.

"The present Kelly-Capper Bill, as amended by the committee on

PARABEND

Pat. No. 1746011

the only
Practical
Thin Wall Tube
Bender



PARABEND Tools are designed to be used on both Thin Wall Tubing and Heavy Wall Conduit. Parabends are so accurate that your work is measurably improved. They are economical of time and energy and you will save the cost of a PARABEND Tool during a single day's operation.



Simple in
Operation

Perfect in
Performance

The ease with which PARABEND Tools are operated and their speedy performance result in a material saving of energy and time. You cannot afford to be without a set.

PARABENDS are sold only through Jobbers and are guaranteed without reservation for a lifetime.

Mail this Coupon Today and Save Money

ACCURATE
KINKLESS
SPEEDY

THE
PARABEND CORPORATION

609 HURON ST. TOLEDO, OHIO

The Parabend Corporation
609 Huron Street
Toledo, Ohio

Please send me the Parabends checked below through my regular source of supply:

NAME OF SUPPLY HOUSE _____ B

STREET _____ CITY _____ STATE _____

$\frac{1}{2}$ Inch \$3.00 $\frac{3}{4}$ Inch \$4.00 1 Inch \$5.00

Notes: Parabend Sizes specified are for the new, thin wall tubing. If desired for use on heavy conduit, specify the next larger size. For example, $\frac{3}{4}$ -in. Parabends work with equal satisfaction on $\frac{1}{2}$ -in. thin wall tubing and $\frac{3}{4}$ -in. heavy conduit.

My Firm Name is _____

Address _____

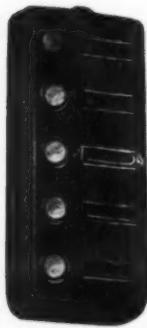


DEPENDABLE for every job!

ALTMAN
DESK
AND
TABLE
PUSHES



Weighted Round Style . . . Finished in golden oak and mahogany.



Rectangular Style, with name plates. Finished in golden oak and mahogany.

Altman Desk and Table Pushes are known for their dependable and trouble-free performance . . . satisfying the most critical executives.

Use Minerallac products on your next installation! They take the uncertainty out of every job. There's no question about whether the job will last or not, and you need not worry about being called back for "adjustments." **DEPENDABILITY** . . . that goes with every Minerallac product. Desk and table pushes, cable hangers, clips and high voltage insulating compounds.



Hanger with Porcelain Bushing

Cable Hangers

Best for jobs where open wiring, cable or conduit is being installed. Made of best spring steel, they're unusually strong.

ORDER THROUGH
YOUR JOBBER

MINERALLAC ELECTRIC COMPANY

25 No. Peoria St.

Chicago

Interstate and Foreign Commerce, does not provide that the manufacturer can, by contract, enforce resale price maintenance up to the last seller to the consumer. It provides only for a contract for resale price maintenance between the manufacturer and the first person to whom he sells. The person to whom he sells may in turn contract with his purchaser for resale price maintenance, but any seller can only contract with the purchaser from him.

"The net result of this would be in the electrical business where distribution is through jobbers and then dealers, that the manufacturer could compel the jobber to resell at a price stipulated by the manufacturer, and the jobber could compel his dealers to resell at a price stipulated by the jobber, but the manufacturer could not control the resale price which the jobber could stipulate, and the result might easily be that jobbers selling the same line of goods would stipulate different resale prices for the dealer.

2. Section 2 of the bill amended is ambiguous in that it is not clear whether anyone selling for resale at retail in the same city or town must sell at the same price to every purchaser regardless of quantity.

3. Section 2 also provides that a contract for price maintenance shall not prevent the selling at other than the stipulated price toward the end of a season of a surplus stock of



BELIEVES IN SOUND PUBLICITY:—The Hart-Enterprise Electrical Co., Inc., New Orleans, La., does a great deal of theatre and public address wiring. Recently the partners decided to advertise this feature as well as their whole business with the sound truck shown in the picture. It is fully equipped and can hook up anywhere there is current in a short time. This view was taken during the Mardi Gras festivities, after which the traveling advertisement and demonstrator was sent out on the road, going as far as Houston, Tex. J. N. Nunez is at the left.

Modernistic

YOU need no longer sidestep the modernistic lighting jobs—those strange, unconventional interiors which call for fixtures of bizarre design. Maybe such interiors give you the willies—no matter, there's money in them. And with Wakefield MODERNISTIC you can go after them with confidence, knowing in advance that you have authentic modernistic design at a popular price.

Popular price is the important point. Restaurants, specialty stores, beauty shops, thousands of new and re-decorated establishments appealing to the present-day feminine yen for the ultra styles, are searching for lighting equipment designed in this new mode—but they want it at reasonable cost. You can now give it to them—Wakefield MODERNISTIC—ultra-today design at mass production price.

This Design Opens
Up a New Market
For the Lighting
Contractor

It's a

RED SPOT

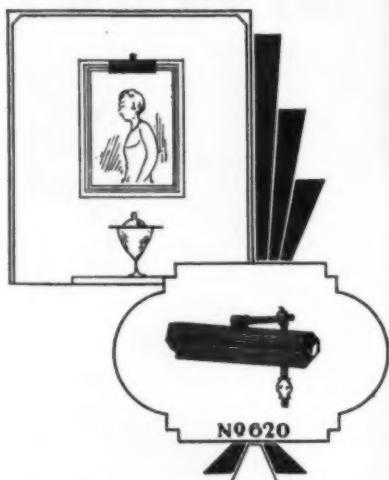
Decoration appears
on alternate faces
of globe.

The
F. W. WAKEFIELD
BRASS COMPANY
Vermilion, Ohio
U. S. A.

Contractors who are Lighting Specialists get the cream of the business, get most of the business, and get the best price . . . How? . . . If you will write we will tell you—and not only tell you but we will show you how to do it and prove to you by actual orders that specializing in lighting will greatly increase your profits. Others are doing it—why not you?



Picture Lighting



Picture lighting offers an opportunity of adding additional business. The above fixture is for T-10 tubular lamp.



This fixture is also for T-10 tubular lamp. Picture reflectors are wired complete with 9 feet silk cord and plug.



This fixture is for overhead gallery lighting. Write for Day-Brite catalog No. 8A for complete picture lighting line.



IN SAME LOCATION 25 YEARS:—J. J. Ziegler, New Orleans, La., started his contracting business in 1904 at the present location, 227 Bourbon St. He has built up a large list of regular customers, leaning decidedly toward commercial work and remodeling. He never fails to sell the customer some additional work, and so far has received nothing but thanks for calling attention to things that will be of benefit to the owner. Mrs. Ziegler, who is shown with him, handles the office affairs.

goods specially adapted to that season. There is too much indefiniteness in the use of the phrases 'toward the end of the season' and 'specially adapted to that season'."

* * *

Southern California Convention Plans

The annual convention of the Southern Chapter of California Electragists will be held May 2 to 4. According to Frank Connolly, executive secretary, the convention will be similar to last year, when it was held on a boat en route from Los Angeles to Ensenada, Mexico.

* * *

Working on General Contractor Credit

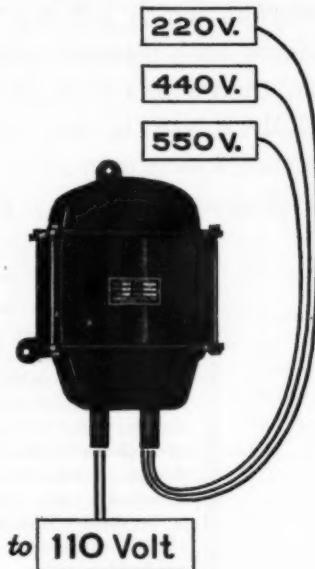
In order to cut down the cost of electrical work, and assist its members in every way possible, the Stamford (Conn.) Chapter of Electragists has discussed the subject of local general contractors who are poor pay and those who work one electrical contractor against another in order to lessen the cost of electrical work. This subject will be taken up in full detail at future meetings.

This chapter has also met with the local jobbers in an effort to cut down retail sales by them.

Upon request from the chapter the

Alert Contractors

are kept busy installing SORGEL Air-Cooled Transformers in industrial and commercial institutions, changing 550, 440, or 220-volt A. C. power circuits to 110 volts, because it is more practical, more economical, and more efficient for lighting, portable tools, appliances, etc. Customers are waiting for this service. We can tell you how to develop it.



SORGEL
AIR-COOLED
TRANSFORMERS

WITH CONDUIT CONNECTIONS

Made in Sizes $\frac{1}{4}$ to 50 KVA.

Single-phase, 2-phase and 3-phase

Approved by Underwriters

The reason SORGEL Transformers can be installed easily and economically in any convenient place inside of buildings, is because they're air-cooled. No enclosures or fire-proof vaults necessary.

Also Complete Line of Air-Cooled, Booster Auto Transformers

Transformers Designed for Special Applications

Sorgel Electric Co.
Clybourn & W. Water Sts.
Milwaukee, W. I.

For POWER

"Van Dorn"

A complete line
of Electric Drills
for every purpose

A range of sizes
from $\frac{3}{16}$ " to 1"

The complete line of Van Dorn electric tools consists of:

| | |
|----------------|--------------------|
| Drills | Hammers |
| Drill Stands | Bench Grinders |
| Screw Drivers | Portable Grinders |
| Valve Relacers | Flex-Disc Grinders |

also Wire Wheel Brushes, Hole Saws
and Valve Reseating Cutters.

Ash your Jobber about Van Dorn Electric Tools for maintenance work.

The "Van Dorn" Electric Tool Co.
Cleveland, Ohio.

THE ROTARY HACK SAW

for your

ELECTRIC DRILL

*and
hand
use*

CUTS A
CLEANER
CONDUIT
HOLE IN $\frac{1}{10}$ THE TIME



MISENER Rotary Hack Saw cuts metal, slate, marble and bakelite. The job is done quickly and at a profit. Type B No. 2 Tool embodies nine conduit sizes $\frac{3}{4}$ " to 4". Complete with $\frac{1}{2}$ " depth of Blades \$13.50. Type B No. 4 Tool embodies six conduit sizes $\frac{1}{2}$ " to 2". Complete with $\frac{1}{2}$ " depth of Blades \$7.00.

MISENER SAFETY CONDUIT SEALS

ARE INEXPENSIVE—
PLUGGED UP CONDUITS ARE COSTLY



MISENER Safety Conduit Seals are manufactured of heavily waxed fibrous stock. They are dirt, water, air and cement-proof. Easily punched out with screw driver when ready to fish the wire. Prices— $\frac{1}{2}$ " package of 500, .20 per hundred; $\frac{3}{4}$ " package of 250, .25 per hundred; 1" package of 250, .25 per hundred; $1\frac{1}{4}$ " package of 150, .30 per hundred; $1\frac{1}{2}$ " package of 150, .35 per hundred; 2" package of 150, .50 per hundred; $2\frac{1}{2}$ " package of 100, .70 per hundred. 3" package of 100, .90 per hundred.

Order our products from your jobber, or write us direct, giving us his name.

Tools, Blades, Seals Pat.

MISENER MFG. CO., Inc.

Dept. A
Syracuse **New York**
Canadian Distributor:
W. Geo. Borland, 442 Birks Bldg.
Montreal

local lighting company has promised to give them a uniform set of requirements so that the contractors can work more closely with the lighting company.

* * *

Columbus Receives Electragist Charter

The Electrical Contractors' Association of Columbus, Ohio, with more than twenty-five active members, has been granted a charter as the Columbus Chapter, A. E. I. The new chapter is undertaking a membership campaign, under the direction of Paul Gilmore, looking to 100 per cent representation in the chapter membership of all eligible concerns in Columbus. E. E. Evans is president and O. C. Jordan, secretary.

* * *

Davis Addresses Canton Contractors

The Electrical Contractors' Association of Canton, Ohio, together with electrical contractors from Alliance, Massillon and surrounding Stark County, were addressed by L. W. Davis, general manager of the Association of Electragists, New York, at a dinner and meeting held March 17, at Canton.

At this meeting plans were made outlining the 1930 program and com-



WIRES NEW TOLEDO BANK BUILDING:—H. C. Scannell, president, and H. S. Lasky, vice president, of the Scannell Electric Construction Co., Toledo, together with C. F. Hammer, secretary of the Toledo Electrical Contractors Association, is shown above inspecting the new 27-story office and bank building which the Scannell company is wiring.

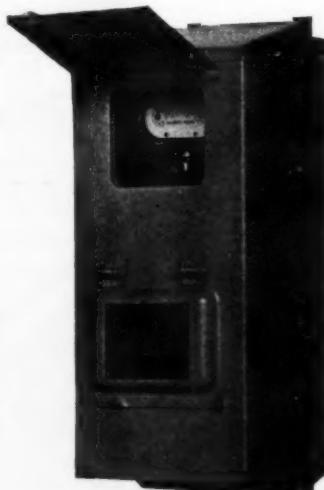


Now! a
30 Ampere
and
60 Ampere

Class A
Weatherproof
Meter Cabinet
without interlock

For Outdoor and
Indoor Use.

Listed as standard
by
Underwriters'
Laboratories



WRITE FOR BULLETIN
No. A-54

The
M. J. Lewis Products

Co
508 WEST GIRARD AVENUE
Philadelphia, Pa.

It's Easy to Install This Lifetime Conduit

THREE are just two reasons why Youngstown Buckeye Conduit is the most widely used of all rigid steel conduits—the first, its remarkable ease of installation on the job; the second, the unfailing protection which it affords the electrical wiring on any building.

Thousands of electrical engineers, electrical contractors and electricians know from practical experience that Youngstown Buckeye Conduit can be installed with less lost motion and less waste. They know that it can be readily bent to any shape without splitting at the seams; that it has deep,

clean-cut threads; and that it can be cut and re-threaded easily on the job.

And in addition to its ease of installation, Youngstown Buckeye Conduit affords that lifetime protection which makes any wiring job a better one. Year after year, decade after decade it protects the enclosed electrical wiring from the ravages of moisture, atmosphere and abrasion.

These are the reasons why thousands of electrical contractors use it consistently, and why you also should use Youngstown Buckeye Conduit on your wiring jobs.

THE YOUNGSTOWN SHEET AND TUBE COMPANY

One of the oldest manufacturers of copper steel, under the well-known and established trade name "Copperoid"
General Offices—YOUNGSTOWN, OHIO

DISTRICT SALES OFFICES

ATLANTA—Healey Bldg.

BOSTON—80 Federal St.

BUFFALO—Liberty Bank Bldg.

CHICAGO—Conway Bldg.

CINCINNATI—Union Trust Bldg.

CLEVELAND—Term'l Tower Bldg.

DALLAS—Magnolia Bldg.

DENVER—Continental Oil Bldg.

DETROIT—Fisher Bldg.

KANSAS CITY, MO.—

Commerce Bldg.

MEMPHIS—P. O. Box 462

MINNEAPOLIS—Andrus Bldg.

NEW ORLEANS—Hibernia Bldg.

NEW YORK—30 Church St.

PITTSBURGH—Oliver Bldg.

PHILADELPHIA—

Franklin Trust Bldg.

SAN FRANCISCO—

55 New Montgomery St.

SEATTLE—Central Bldg.

ST. LOUIS—

325 Louderman Building

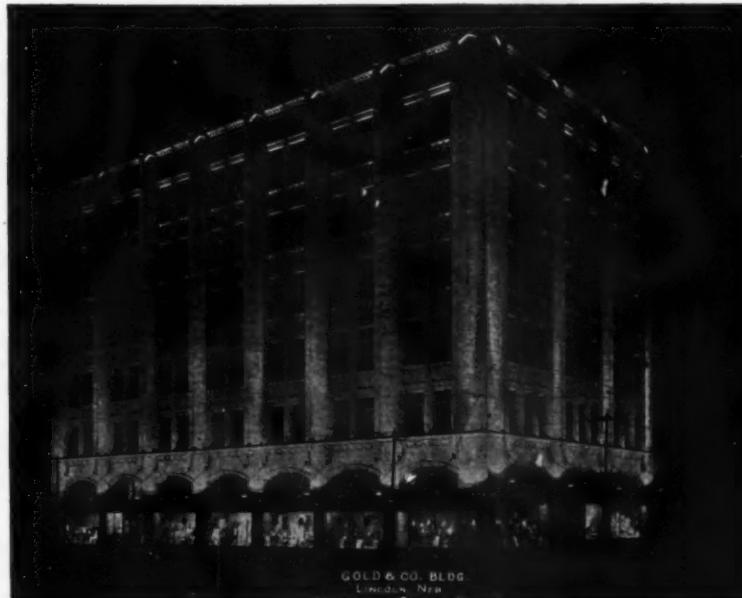
YOUNGSTOWN—Stampaugh Bldg.

LONDON REPRESENTATIVE—The Youngstown Steel Products Co.

Dashwood House, Old Broad St., London, E. C. England

Gold & Co. Building, Lincoln, Neb., where the electrical wiring is permanently protected by Youngstown Buckeye Conduit.

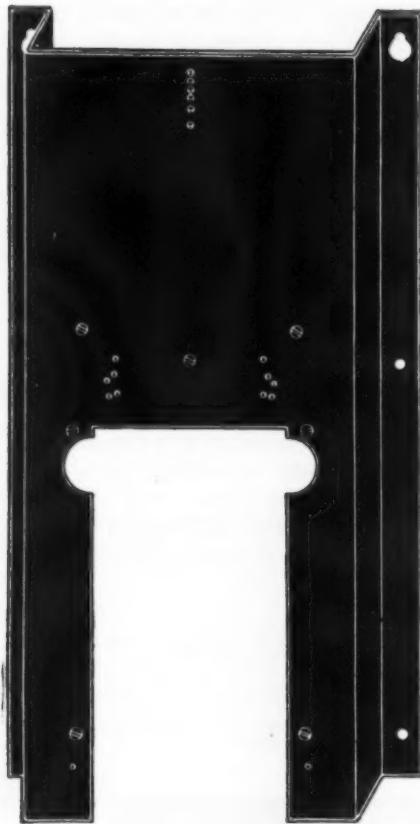
Architects—
DAVIS & WILSON
General Contractor—
OLSON CONSTRUCTION CO.
Electrical Contractor—
WM. W. BERGER



YOUNGSTOWN

GALVANIZED SHEETS PROTECT  SAVE WITH STEEL

THEY WILL NOT!



WARP
BUCKLE
SHRINK
OR
TWIST

METAL
METER
BOARDS

for Better Switch Installations

Made of one-piece formed steel construction, thus assuring rigidity, strength and durability. Unexcelled for Combine Switch and Meter installations. So arranged with tapped holes, provided with machine screws, that it's practical and easy to attach switch and meter to board. Write today for catalog on this line and on Wadsworth Safety Meter Switches.

The WADSWORTH ELECTRIC MFG. CO. INC.
Corington, Kentucky

WADSWORTH
STANDARD
METAL METER BOARDS



ONE OF THE OLD GUARD:—S. B. McGinn, president of the McGinn Electric Co., Charlotte, N. C., has been in the electrical game for twenty-four years, all in the neighborhood of Charlotte and vicinity. He specializes in residential work, employing ten men all the year round.

mittees were appointed to carry out these plans. One of the proposed plans is securing John Kuhlemeyer's services for a six weeks' program beginning some time in May.

New quarters have been rented by the association from the Builders' Exchange on the third floor of the New Vicary building and regular weekly meetings will be held each Monday night.

* * *

Southern Minnesota Contractors Meet

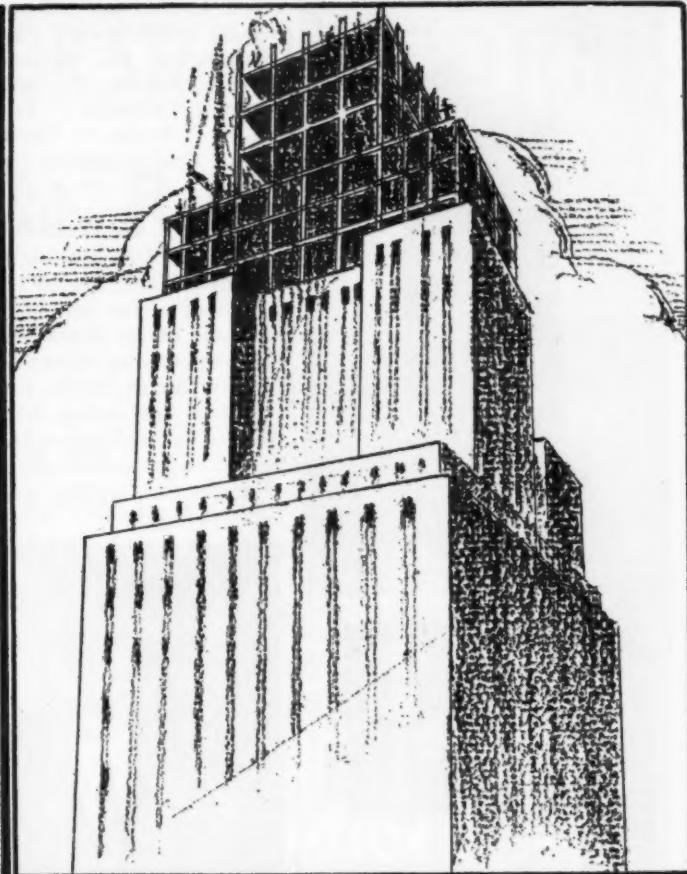
The second annual meeting of the Southern Minnesota Electrical Association was held February 24 at the Sulpaugh Hotel, Mankato, Minn.

President J. W. Hruska opened the business meeting, at which time the reports of the secretary-treasurer and committees were read.

Among the speakers on the program were E. L. Harris, field secretary, Minneapolis Electrical Contractors Association, who talked on "What the Minneapolis Contractors Have Accomplished in the Past Year"; "What Our Association Should Do in 1930," by Charles Bailey of Bailey Reynolds Co., Albert Lea, Minn., together with round table discussion by E. W. Raetz, Rochester, Minn., George R. Jones, member State Board of Electricity, and others. Frank J. Langford, National executive committeeman for Association of Electragists spoke on "The Value of Electrical Associations and



Mohawk Conduit may be had in either Indian Black (enamelled) or Indian White (galvanized).



MOHAWK

DURABLE-HEAVY RIGID CONDUIT

Mohawk Heavy Rigid Conduit is made tough for heavy duty. It remains on the job as long as the building lasts. Its use is a monument to good merchandising and good electric engineering. It meets every requirement of a high-grade electrical installation.

Mohawk Rigid Conduit has the approval of contractors; it is made heavy; impervious to acids; durable as the building. Tough enamel; smooth, glossy finish. Pipe bends so easily, you hardly realize it is steel. And, clean, even threads that make work a joy.

MOHAWK CONDUIT CO., Inc.
COHOES, NEW YORK

BRANCH OFFICES: - - - NEW YORK
CHICAGO - BOSTON - PHILADELPHIA
INDIANAPOLIS - - - - NORFOLK
MINNEAPOLIS - DENVER - SEATTLE
LOS ANGELES - - SALT LAKE CITY
SAN FRANCISCO - PORTLAND, ORE.



Type ZM 25 Amp.
110/220 volt Sauter
Time Switch installed
in Chanin Building,
New York, to control
lighting circuits of 28
flood lights, illumination
of buttresses, corners
and promenade
on top of building.



Whether It Is Two Stories or Fifty-Six You Can Profit in Installing Sauter Time Switches

Building owners are realizing the tremendous advertising possibilities of sign and flood lighting. Office buildings, factories, theatres, stores, buildings of all types are your prospects.

There is an ever-increasing demand for Sauter Time Switches. Why not get your share of this business?

The SAUTER Astronomic Time Switch for the automatic control of lighting circuits is dependable and accurate. It operates with highest efficiency and at lowest cost. There is no future maintenance to reduce your profits. Write us for details of the profitable uses of the SAUTER Time Switch and of its remarkable SERVICE RECORD.

SAUTER
Time **Switches**

R. W. Cramer & Co., Inc.
136 Liberty Street, New York

Their Contact with State and National Organizations," and A. G. Bucholz of the Northern States Power Company, Mankato Division, spoke on "Relation of Power Companies' Activities to Electrical Contractor Dealers and the Public."

* * *

J. R. Wilson

J. R. Wilson ("Bob") died in Glendale, Calif., March 12, after an illness of about two months. At the time of his death Mr. Wilson was engineering estimator for the Quality Electric Works, Los Angeles industrial contracting firm, a position he had held since 1926. Prior to that he had served for four years as estimator for the Los Angeles Electric Works.

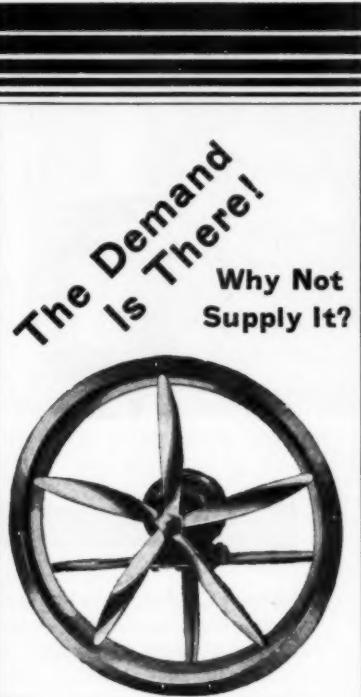


J. R. Wilson

Last year Mr. Wilson served as president of the Estimators' Section of the California Electragists, Southern Chapter, which section he helped to organize, and whose secretary he was for four years. In 1928 he started the magazine "The Estimator," of which he was editor until his death.

A tireless worker, he was prominent in all the educational activities of the California Electragists. He also was a contributor to several trade magazines, for which he wrote articles on installation methods, estimating, motor problems and similar subjects.

Mr. Wilson had been connected with the electrical construction industry for more than 30 years. In the early part of his career he was associated with the Chicago City Railway Co. and later moved to Cleveland, Ohio, where he specialized in Class A building installations. From 1911 to 1914 he was city engineer for Hudson, Ohio.



Business and individuals have become "air-minded." They no longer need to be educated to the value of proper ventilation. It's now entirely up to you to cash in on this missionary work. The

Meier Nu-air
TRADE MARK REGISTERED

line represents the last word in high grade efficient ventilating equipment.

A Quality Fan Priced Right with a Good Margin of Profit

Built entirely of one-piece aluminum with nothing to rust or corrode. Specially designed ball-bearing motor permits fan to operate in any position. Exclusive ring design prevents back pressure. Meier Nu-air Fans are backed by an organization that has specialized in quality electrical equipment for more than a quarter century. Distributors will get every possible co-operation and merchandising assistance.

2 cents well invested
Write today for Distributor Literature

MEIER ELECTRIC & MACHINE CO.
136 South Meridian St.,
Ind. 1004 INDIANAPOLIS, IND.

TRUMBULL MOTOR STARTING SWITCHES



of the R.M. TYPE

ROTOR MOVEMENT [R. M.] SAFETY SWITCHES ARE DESIGNED FOR THE MOST SEVERE USE



No. 84322

"R.M." Two Position Motor Starting Switches

Shunt the fuses in the starting position. These switches break stalled rotor currents from the starting position if the fuses are blown. Handle automatically throws from "start" to "running" position when hand is taken away, assuring fuse protection.

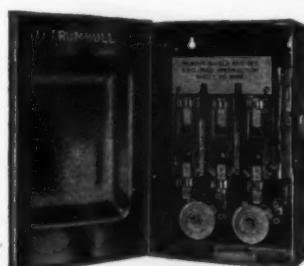
COMBINATION SWITCHES

are available with either the Fuse or No-Fuse manually operated "R.M." switch in combination with a magnetic switch having either local or remote control. Both switches will break stalled rotor current of the motors for which they are rated.



No. 81321-LNR6

Complete listings given on pages 17, 18, 24 and 25 of TRUMBULL Catalog No. 14.



No. 82361 T.P.

USED FROM ONE END OF THE COUNTRY TO THE OTHER ON VARIOUS MOTOR DRIVEN MACHINERY



ACCURATE OVERLOAD PROTECTION

for the motor is obtained through the use of Thermal Cutouts in the type of switch pictured at the left. Fuses provide short circuit protection. This switch is suitable for all voltages to 600 volts inclusive with the Thermal Cutout capacity limited to 30 amperes.

THE TRUMBULL ELECTRIC MFG. COMPANY

Plainville, Conn.

BRANCH PANEL BOARD FACTORY AT LUDINGTON, MICH.

Branch Factories—Switches, Switchboards and Panel Boards: A. G. Electric Mfg. Co. Division ATLANTA
SEATTLE, WASH.
LOS ANGELES, CALIF.

CHICAGO
2001 W. Pershing Rd.

BOSTON
Statler Building

PHILADELPHIA
511-519 N. Broad Street

Spring housecleaning means PROFITS for YOU . . .



During the spring house cleaning rush profits come automatically to you when you use this handy, compact Ohio Vacuum Cleaner Kit, No. 10, in your repair service. You simply place it handily about the shop, and there you have ready at all times sufficient brushes, springs and wicks for repairs on over one hundred and fifty makes of cleaners. No need to send to a factory for supply parts. Each item is coded and numbered so that installation can be made without guesswork or confusion.

Now is the time of year when there is a demand for this type of repair business in every community. And it is a mighty profitable business when you show you are prepared to service all types of vacuum cleaners without delays.

Get this Kit to assure your share of profits from the spring house cleaning rush. Write your jobber today—he will supply you.

Write for OHIO catalog No. 17 containing complete Brush information on Fractional Horse Power motors, single phase repulsion induction type.

\$10⁰⁰ for this kit

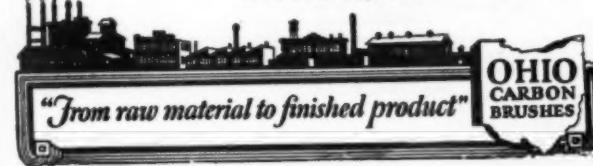


THE OHIO CARBON COMPANY

8215 Alvira Ave.,

Cleveland, Ohio

West of the Rockies
351 9th Street, San Francisco, Cal.



He came to California in 1920 with the J. G. White Engineering Corp., to superintend the electrical construction in the \$3,000,000 sulphuric plant of the General Chemical Co., at El Segundo, Calif. Following completion of his work for that company he was active in the electrical construction field in Los Angeles, both in building construction and industrial plant installations. In 1922 he joined the Los Angeles Electric Works.

Rogers Heads Schenectady League

The Schenectady Chapter of the Hudson-Mohawk Electric League has elected the following officers for 1930: L. R. Rogers, president; R. Spengler, vice-president, and L. N. Lamboy, secretary-treasurer.

Kenosha Electragists Organize Chapter

Following several organization meetings arranged during the past month with the cooperation of Frank M. O'Meara, A. E. I. field representative, the electragists of Kenosha, Wis., have been granted a charter as the Kenosha Chapter. Following are the members selected to serve as officers for 1930: Henry Herrema, president; R. A. Haubrich, vice-president; D. G. Speaker, secretary-treasurer. The officers and J. Josephson and O. E. Graf comprise the board of directors.



NEW STORE HELPS FIXTURE BUSINESS:—The McCallum Electric Co., Tulsa, Okla., is firmly established in the new home at 814 South Main St. In addition to a large wiring business the company has trained merchandising men, selling service as well as radio, fixtures and appliances. Chas. McCallum is second from the left in this picture.



A valuable investment for every man in electrical work—

THIS great Handbook of practical electricity is the recognized source of reference for electricians. In practical, convenient and immediately usable form it gives you:

- practical suggestions for locating and correcting both motor and generator troubles.
- clear directions for the proper installation and operation of motors and generators.
- an explanation of the fundamental principles of electricity.
- helpful data on transformers.
- sound information for handling all types of wiring for light and power.
- an explanation of more than 3,000 electrical problems.

Croft's
American Electricians' Handbook

823 pages, flexible, pocket size, 900 illustrations
\$4.00 postpaid

HERE is a book which fits right in with your daily work and smooths out those electrical problems which are constantly presenting themselves. It has become widely accepted as the one standard electrical help containing all the data, kinks, short-cuts and other information that the practical electrician, wireman, lineman, contractor, plant superintendent and construction engineer needs.

Examine this book for 10 days FREE!

Simply slip and mail the coupon. We will send you this Handbook for 10 days' free examination. Look it over first—then decide whether you will buy it.

**MC GRAW-HILL
FREE EXAMINATION COUPON**

McGraw-Hill Book Company, Inc., 370 Seventh Avenue, New York.
Send me Croft's American Electricians' Handbook, \$4.00 postpaid, on 10 days' approval. I agree to pay for the book or return it postpaid within 10 days of receipt.

(To secure book on approval, print your name plainly and fill in all lines.)

Name.....

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City and State.....

Position.....

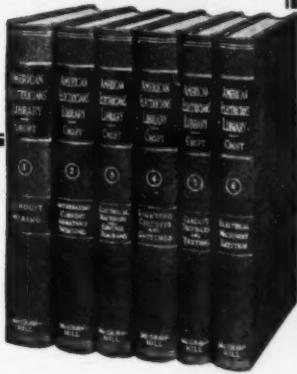
Name of Company.....

(Books sent on approval to retail purchasers in the U. S. and Canada only.)

E.C. 4-30

Every electrical man who handles wiring jobs

—should have this great electrical library!



TERRELL CROFT has prepared a new subscription library for practical electricians. The books are packed with the kind of "shop talk" information and question-answering diagrams and illustrations that have made all other Croft books so famous. A short daily period devoted to home study of these books can have but one result—a better job and more money for you.

American Electricians' Library

6 volumes—Over 2,000 pages—fully illustrated

Terrell Croft's books on practical electricity are known and respected by experienced electricians throughout the world. This latest Croft Library is packed full of practical data, diagrams, kinks, short cuts, helps—to supplement his previous books. These six books are written especially to help wiremen, trouble shooters, maintenance men, armature winders and electrical contractors.

The six books cover the whole wiring field. They give you concrete, usable details about new and better ways of armature winding, conduit wiring, circuit testing, etc., telling you what experience has proved to be the best, showing you what to look out for, what to avoid—outlining for you, step by step, the surest, quickest ways of locating troubles and of remedying them.

Over a Thousand Wiring Diagrams

The thousand wiring diagrams in these six books are alone worth the price of the entire library to any practical electrician. Many of these diagrams are unobtainable elsewhere; many more are very hard to get from any other source; all of them are much clearer and more helpful than most wiring diagrams available. These wiring diagrams alone make Croft's American Electricians' Library a great set of books.

Free Examination—Small Monthly Payments



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act
NOW!**

**MC GRAW-HILL
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McGraw-Hill Book Co., Inc., 370 Seventh Avenue, New York.

Gentlemen—Please send me the AMERICAN ELECTRICIANS' LIBRARY (shipping charges prepaid), for 10 days' free examination. If satisfactory, I will send \$1.50 in ten days and \$2.00 a month until the special price of \$17.50 has been paid. If not wanted, I will write you for return shipping instructions. When my first payment is received you are to send me my free copy of Braymer and Roe's REWINDING SMALL MOTORS.

Name.....

Home Address.....

City.....

Position.....

Name of Company.....

E.C. 4-30



*Send for our
Bulletin 527*

Trester Air Cooled Transformers For LIGHTING SYSTEMS and other INDUSTRIAL USES

REPLACE condemned balancing coils with transformers that conform to the New Code. They are safe, economical and efficient in operation.

Connect lighting load to 220, 440 or 550 volt power mains.

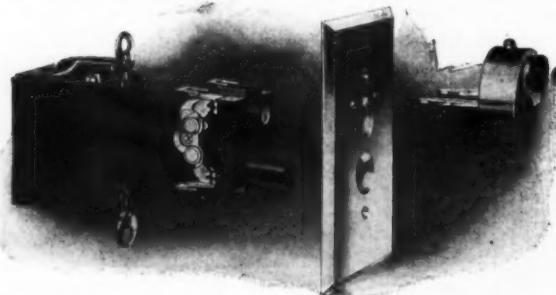
A field for business during the slack months.

Representatives desired in principal cities and Industrial centers.

TRESTER SERVICE ELECTRIC CO.
49 E. Wells St., Milwaukee, Wis.
"Trester Service Since 1908"

INSTALL THEM WITHOUT ADDITIONAL NEW WIRING

SWITCH & RECEPTACLE for speedy installations in finished buildings



Manufacturers of
Switchboards and
Panel Boards
Knife Switches
Enclosed Fuses
Ring Fuses
Safety Apparatus
Flush Switches and
Receptacles
Faceplates
Electrical Appliances
Built to Order.
Since 1892

Contractors, here's a line of detachable push button switches—arranged with receptacles that can be controlled by the switch or not, as desired. Especially designed for installation in finished buildings where it is desired to install a receptacle without additional new wiring or cutting the wall. Write today!!!

Established 1892

METROPOLITAN
ELECTRIC MFG CO.

East Ave. at 14th St.

Long Island City, N.Y.

Jobbers Support Capper-Kelly Bill

While the National Electrical Wholesalers Association has given no formal consideration to the Capper-Kelly bill as amended in January of this year, E. Donald Tolles, managing director of the association, states that it is safe to assume that after supporting the American Fair Trade Association for fifteen years, the electrical wholesalers would prefer to have the bill passed in its amended form rather than have no resale price maintenance legislation at all.

* * *

Contractors Must Exercise Care in Wiring

A very important decision governing the work of electrical contractors has recently been handed down by the Court of Appeals of Kentucky in the case of F. J. Conn et al. vs. Lexington Utilities Company.

The power company contracted with Mrs. Conn to wire her house and turned the contract over to an electrical contractor. A fire occurred due to improper wiring and the court held that the plaintiff was entitled to damages. The measure of the damages is the difference in the market



WIRES MODEL LAUNDRY: R. Seddon, a Joliet (Ill.) contractor, has just completed the electrical work on the American Institute Laundry and at present is engaged in modernizing the electrical control of the Model Laundry at Champaign, Ill. The American Institute Laundry is a national organization for promoting modern methods in laundry work and is considered the most up-to-date plant in the United States. Mr. Seddon has also just completed work on the Montgomery Ward building in Joliet and is doing the electrical work on the new Harvey Hotel at Ottawa, Ill.



Two Ways of Making Money

There are only two ways for a Contractor-Dealer to accumulate money—one is to save money on his purchases and the other is to sell at a Profit!

BUYING—SELLING

You no doubt buy right, but are you certain that your selling price includes a Profit? Most people are willing to pay a fair price for your goods and services if they have proof that you charge everyone alike.

WHAT IS A FAIR PRICE?

THE NATIONAL ELECTRICAL RESALE PRICE SERVICE gives you the answer whether it be a $\frac{1}{8}$ " Socket Bushing or a 400 Ampere Safety Switch, the price is there.

PROFIT INSURANCE

If you have been dissatisfied with your profits—here is something that will make money for you every day in the year. A Service that hundreds of successful Contractor-Dealers are using to insure a profit on every job. We will gladly send full particulars without obligation, of course. Please attach the coupon below to your letter-head as the Service is furnished only to those actively engaged in the business.

Henderson-Hazel Corporation,
5005 Euclid Avenue,
Cleveland, Ohio.

Without obligation send us full particulars about the NATIONAL ELECTRICAL RESALE PRICE SERVICE.

Name.....

Street Address.....

City or Town.....

State.....

NEW

NO DRAFT FAN GUARDS and FIXTURES

Patents Pending



No. Z-716 List \$28.65 and up

Eliminates all DRAFTS from Electric Fans

NOW! Your customers in hospitals, hotels, chain stores, offices, etc., can enjoy perfect circulation the year 'round without that usual draft from electric fans! "NO DRAFT" Fan Fixture pictured above, incorporated in an attractive lighting fixture eliminates the direct current of air which always has been an objectionable feature in all electric fans.



No. 716 List \$2.50 and up

FITS ANY FAN

Desk and Bracket Fans of any size can be equipped with a "NO DRAFT" Fan guard. They're easy to attach and will assure your customers of perfect circulation without that direct current of air.

Ask Your Jobber
about these profitable items or write us direct, giving us his name.

NO DRAFT FAN FIXTURE CO.
1703 BUILDERS BLDG.
CHICAGO

value of the property immediately before and immediately after the fire if the property was so badly damaged that it was incapable of reasonable repair. If, however, the property is susceptible of repair the measure of damages is the reasonable cost of repairing and restoring the building.

The court held that the same degree of care should be exercised by electrical contractors as by the power company which furnishes service.

While previous rulings of the courts have held that reasonable care must be exercised for the protection of human life, it was held in this case that this was doubly effective and pertains as well to property.

* * *

Adequacy in 1930 Canadian Code

The second edition of the Canadian Electrical Code, 1930 Standard, has recently been distributed. Changes for the most part have been made as a result of the changes in the 1930 National Electrical Code. In some respects, however, the Canadian Code has continued to be in advance of the National Code. This is particularly true with respect to adequacy in which the Canadian Code not only provides for demand factors for classes of premises, but also for

| Premises | Watts per sq. ft. of floor area |
|--|---------------------------------|
| Private residences, apartment houses, hotels (except ball-rooms) and industrial premises | 1 |
| Stores (including departmental stores) and offices | 2 |
| Schools | 1½ |
| Hospitals | ¾ |
| Garages (exclusive of their machine shops and display rooms) | ½ |
| Storage warehouses | ¼ |

feeders having up to thirty branch circuits.

There is also included a table giving minimum watts per square foot of floor area for certain classes of premises. In computing floor areas for this table, which is given here, multiply the outside ground area covered by the building by the number of floors. Floors below ground level, if used only as cellars, unfinished attics and open porches will not be included.

For show window lighting the Canadian Code calls for conductors to be determined on the assumption of not less than 200 watts per lineal foot measured along the base of the window.



REFLECTORS for the SPECIALIST



No. 883-885C

REFLECTOR for all industrial lighting.



No. 773C

Two light show case reflector. Easy to install.



No. 933 & 934

Picture Reflector for homes, offices, art galleries, etc.



No. 986

Wire raceway and fittings for windows.

The leading electrical contractors are specialists. Be an OAMCO specialist. There's an OAMCO Reflector of every description. For industrial uses, show cases, banks, windows, stores and also outdoor lighting.

OVERBAGH & AYRES MFG. CO.

413 S. Clinton St., Chicago, Ill.



WIRES CITY HALL—Claude Doyle conducts the Doyle Electric Co., Waco, Tex., and likes big work. Moreover, he puts his name prominently on every job. One of his latest is the Waco Municipal Building.

Holyoke Wants Inspector

In the annual report of the municipal light board of Holyoke, Mass., request is again made that the town appoint an inspector of inside wiring. It is proposed to inspect in accordance with the requirements of the National Electrical Code.

* * *

Kalamazoo Electragists Study Wiring Costs

A study of wiring costs is being conducted by the Kalamazoo Electragists and members have been requested to present job sheets on new house wiring in order to more intelligently study this angle of the contracting business.

Inspection of electrical work outside of the city limits, in order to protect owners of new buildings against defective wiring, is also under consideration.

Charles White has been elected president and Carl E. Walters vice-president of the Kalamazoo Electragists.

* * *

Harry Hamm Heads Los Angeles Group

Harry H. Hamm, of Hamm & Smith Electric Company, Los Angeles, was recently elected president of the Association of Electrical Contractors, affiliated with the Los Angeles Electragists and known as the Intermediate Section of the Los Angeles group. Mr. Hamm succeeds R. M. Fry as president. A. C. Arnold,

BENJAMIN·STARRETT

Heavy Duty Lighting Panelboards and Steel Cabinets



Safety Front Type Heavy Duty Benjamin·Starrett Panelboard

The wide variety of circuit arrangements makes it easy to select just the right panel to meet any residence, commercial, institutional or industrial wiring requirement.

Many exclusive Benjamin·Starrett features cut installation time to the minimum, assuring the contractor a sure profit on his panelboard jobs.

The unit sectional construction and individualizing of parts provide the greatest accessibility and flexibility, assuring the highest type of continuous service at a minimum of maintenance expense.



FREE—This 80-page catalog of complete listings and illustrations. Send for it today.

Special Features

Easy to Install

4-inch wiring space on all four sides; adjustable trim clamps; extra large panel mounting holes; slip-off barrier easily removed; one-piece panel back.

Quick Delivery

Boxes carried in stock at local distributors and district warehouses. Unit section construction insures quick assembly of panelboard.

All Parts Removable from Front

Should replacement of parts ever become necessary, the switches and fuse receptacles are individual units which may be removed without disturbing the trim. Replacements or changes in branch circuits made without removing panel from box.

Heavy Duty Switches
Branch circuit tumbler switches on both two-fuse and one-fuse panels are heavy duty type—30 ampere, 250 volts.

Three Styles of Cabinets

Safety Front, Protective Front and Open Front to suit any specific requirement.

Benjamin Electric Mfg. Co.

General Offices and Factory

DES PLAINES, ILL. (Chicago Suburb)

New York

Chicago

San Francisco



Ralco Receptacles and Plugs are especially designed and built to withstand the hardest kind of service. In coal, sand and gravel yards, welding machines, machine shops, etc., they assure your customers of long lived and reliable performance. The Ralco Line assures you steady profits! Your jobber will supply you with sample. Just write us today giving us his name.

RALCO MANUFACTURING CO.
125 N. ALBANY AVE. CHICAGO

DESIGNERS

RALCO MANUFACTURERS
RUGGED RECEPTACLES AND PLUGS

SURGES AIR-COOLED TRANSFORMERS

230 V.
FUSE
H1 H2
X1 X2
115

New Code Transformer
for Polarity Wiring
(Type SA, single phase)

1/2
to
50
K.V.A.
Single,
Two,
or
Three
Phase

CONSULT US ON YOUR
SPECIAL AND STANDARD
TRANSFORMER NEEDS.
Write for Bulletin 112.

SURGES ELECTRIC CO., Milwaukee, Wis.

of the Electric Installation Corporation, became vice-president. J. L. King is treasurer. A. H. Gudie is executive secretary for this group.

Under the organization form of this association the members elect a board of five who in turn select the president and vice-president. This board consists of L. A. Duncan, of Duncan Electric Company; G. E. Norberg, of Johnson & Norberg; Paul M. Rodet, of the Eveready Electric Company; Harry G. Self, of Self & Dalbey, and J. L. King.

* * *

Super-Red Seal Specifications

A super-red seal specification has been launched by the Electric Service League of Toronto to cover wiring of \$15,000 and over homes. These specifications, which are considerably in advance of the minimum, follow:

Service

3 No. 0 wires (250 amp.), 100 amp. 250 volt switch, distribution box 16 in. by 18 in. (or, alternatively, box with capacity for 8 single-fuse circuits), for special circuits; range fuse; separate dead front panel for lighting circuits; preferably in kitchen.

Special Circuits

Range circuit (3 No. 6's); 3000 watt circuit to boiler location for water-heater, with wiring to completed switch in kitchen. 2-wire circuit for oil furnace or coal-blower. 1500 watt circuit to kitchen for ironer (standard receptacle outlet). 3000 watt circuit to laundry. 3000 watt circuit to living-room fireplace, and to den or library fireplace.

Outlets and Switches Living-room

Rating each lighting outlet (ceiling or bracket) at 50 watts, sufficient outlets to give 1½ watts per square foot of floor area. 3000 watt fireplace heater outlet, 2 convenience outlets on mantel. Completed radio outlet containing duplex receptacle with ground and aerial leads. One duplex convenience outlet for every 10 feet of running baseboard, half of these to be on separate switch.

Switches:—If two entrances, 3-way switch at each entrance on ceiling outlet or brackets. All brackets on one or more switches.

Dining-room

Center ceiling outlet, or multiple ceiling outlets, bracket at each side of buffet location, duplex convenience outlet on each wall.

Kitchen

Center ceiling outlet, and ceiling outlets over range position and sink (or alternatively, two ceiling outlets), receptacle for ventilating fan, 1500 watt heater outlet for ironer; range wiring 3 No. 6's; water heater switch on circuit to boiler location; refrigerator outlet; electric clock outlet; 2 other duplex convenience outlets; telephone outlet.

Laundry

Ceiling light outlet, separate washing machine outlet, 3000 watt heater outlet.

Basement

Lighting outlet for every 150 square feet of floor area or major fraction thereof, switch at head of stairway, 3000 watt circuit to boiler location. One 2-wire circuit for oil furnace or coal blower. All ceiling lights on wall switches.

Garage

Light outlet over engine location, on switch. If garage is detached, 3-way switch from house to garage light. Light outlet over driveway, on house switch; one convenience outlet.

Porches and Verandas

Ceiling outlet or brackets controlled from inside switch. One duplex convenience outlet. Illuminated house-number.

Bedrooms

Master bedroom—ceiling outlet, one bracket for each 50 square feet of floor space. Completed radio outlet with duplex receptacle, and aerial and ground leads. Duplex convenience outlet for each 10 feet of baseboard. Telephone outlet.

Other bedrooms—ceiling outlet, and two or more brackets. One duplex convenience outlet on each side of room. Telephone outlet in guest room.

Bathrooms

Ceiling outlet and two brackets each side of cabinet (brackets on wall switch). Flush wall heater of 1000 watts.

Upper and Lower Halls

Ceiling outlet or brackets on switch, duplex convenience outlet in hall and one on landing, 3 or 4-way switches in upper and lower hall light outlets. Telephone outlet.

Library, Den, etc.

Ceiling outlet, 2 brackets over fireplace, 3000 watt heater outlet at fireplace, one convenience outlet for every 10 feet of baseboard, or one for each wall. Completed radio outlet containing duplex receptacle with ground and aerial leads. Telephone outlet.

Sunroom

Ceiling outlet or brackets, duplex convenience outlet for each 12 ft. of baseboard. Telephone outlet.

Breakfast Room

Ceiling outlet or brackets, 2 duplex convenience outlets.

Attic or Other Rooms

Ceiling outlet or brackets on switch, 1 duplex convenience outlet.

Bell System

Combination bell and buzzer on front and rear entrances with bell transformer. Announcer system from living-room, dining-room, library and bedrooms to kitchen and maid's quarters.

Telephone System

Outside standpipe 10 ft. above grade to basement, protector cabinet, and conduit ($\frac{1}{2}$ -in.) to master phone outlet, with conduit branches to outlets in master bedroom, guest room, library, and kitchen.

General Conditions

1. All stairs from ground floor up must have 3 or 4-way switches.
2. All closets must each contain lighting outlet, preferably on door switch.
3. All brackets in a room must be grouped on one or more switches.
5. All ceiling outlets must be on wall switches.

FLOODLIGHTS



GIANTS in size, but light in weight, these Kliegl reflectors are designed to illuminate large areas at a small cost. They are made of aluminum, in models for one or two 1000-watt lamps, project a very bright evenly diffused light, entirely free from blinding glare, over a large area, and for a surprisingly long distance; are particularly useful for lighting auto filling stations, swimming pools and beaches, athletic fields, etc.—also for night construction work of all kinds. Write for full particulars and trade prices.

KLIEGL BROS

UNIVERSAL ELECTRIC STAGE LIGHTING CO., INC.

ESTABLISHED 1896

THEATRICAL • DECORATIVE • SPECTACULAR

LIGHTING

321 WEST 50TH STREET

NEW YORK, N.Y.



EASILY attached
or removed
without disturbing the wiring. Equally
dependable for outdoor or indoor use
as castings are cadmium plated and will
not rust—a talking point alert jobbers'
salesmen are using to advantage.

With three types of socket fittings
manufactured exclusively by "Quad",
these reflectors provide practical and
economical lighting, and are strong,
simple and waterproof.

Folder giving full particulars will help
you sell more reflectors. Write today
for a copy of this.



DOME REFLECTORS



QUADRANGLE MANUFACTURING CO.

26 South Peoria St.

Chicago, Ill.



Split Knobs

THESE are the safe, approved knobs for all types of residence wiring. They mean better jobs at no added cost. Bull Dog Split Knobs, together with Illinois Porcelain Tubes, Cleats and Solid Knobs form a complete line of standard porcelain.



Sold Through Wholesalers

ILLINOIS ELECTRIC PORCELAIN CO.
Macomb, Illinois

New Officers for St. Lucie Chapter

The St. Lucie Chapter of Electragists held a meeting in Cocoa, Fla., late in February for election of officers, choosing the following to serve for the ensuing term: Thurman Wilson, Fort Pierce, president; H. B. Connelly, Vero Beach, vice-president; Frank Brown, Cocoa, secretary-treasurer.

To stimulate individual member interest in all towns within its jurisdiction, the chapter has arranged successive monthly meetings to be held in Vero Beach in April, Fort Pierce in May, Stuart in June and Melbourne in July.

* * *

New Industrial Wiring for Buffalo

Considerable volume of business will be secured by electrical contractors in Buffalo during the coming year as a result of the decision of the local power company to change the 25-cycle system to 60-cycles.

* * *

Nelson Heads St. Paul Contractors

J. O. Nelson was elected president of the Master Electrical Contractors' Division of the Electrical League of St. Paul at the annual meeting recently held. Other officers elected were: J. J. Purcell, vice-president; H. C. Bentz, secretary, and J. A. Fischler, treasurer. The board of directors comprise of C. A. Yares, Paul Schorr, A. E. Hansen, A. J. Schneiderbauer and J. O. Nelson.

At the March meeting of the league it was decided to concentrate this year primarily upon credit control, Red Seal wiring and reinspection.

* * *

Birmingham Electragists Elect Officers

The Jefferson County Chapter of Electragists, Birmingham, Ala., elected the following officers for 1930: A. P. Bagby, Bagby Elevator & Electric Co., president; J. S. O'Keefe, O'Keefe & Lyons, vice-president; C. S. Dyer, Ball & Dyer Electric Co., treasurer, and D. B.



Are You Aiming High?

ELECTRICAL Contractors, especially those who are located adjacent to rural territory, will do well to investigate the vast potential business to be had in farm wiring.

Q Farm owners, the majority of whom are practical business men, are surely and rapidly applying efficiency to farm operations with a marked degree of success. The progressive farmer is right now conscious of the many economies possible in electrical operation. Soon he will not only use electricity for lighting but will cook, heat, pump, grind, refrigerate, spray and ventilate electrically.

Q That's his future program. But right now he needs new wiring, additional service outlets and extensions. He knows (through the farm paper *Knob & Tube* campaign) that KNOB & TUBE WIRING which employs hard vitreous porcelain for insulation is *Safe . . . Dependable . . . Economical*. He is now in a receptive mood; he will listen to your story. See him at once.

Electrical Contractors should look sharp at their rural and suburban markets for Knob & Tube installations. The Knob & Tube Advertising Campaign, now in its fifth month, is creating new work and extension for the Electrical Contractor who will cooperate. Those interested should list their names with the sponsor manufacturers of this campaign in order that live inquiries may be followed up without delay.



ILLINOIS ELECTRIC PORCELAIN CO.

Macomb, Ill.

KNOX PORCELAIN CORPORATION
Knoxville, Tenn.

PORCELAIN PRODUCTS, Inc.
Findlay, Ohio



HAS FINE RECORD OF LARGE JOBS:—Eugene Ashe, head of Ashe Electric Co., Ft. Worth, Tex., has his office walls decorated with photographs of large buildings wired by his company. He is active in both the Electric Club and the Electragist Chapter.

Clayton, Mill & Mine Construction Co., secretary.

J. R. Wilcox, formerly an electragist in Birmingham, and later identified with the field work of the A. E. I., has been employed as manager of the chapter.

* * *

Market Survey for New York

In connection with the market development work of the New York Electric Association a survey has already been started for the purpose of securing a complete analysis of market possibilities in the metropolitan area.

The plan for modernization of industry has also been started by this body.

* * *

Reynolds Heads El Paso League

At the recent annual election of the Electrical League of El Paso, Tex., L. H. Reynolds, owner of Reynolds Electric Company, electrical contractor, was elected president; D. U. Gaston, General Electric Supply Corporation, vice-president, and J. H. Warden, El Paso Electric Company, secretary-treasurer. In addition to the officers the board of directors includes P. M. Marshall, General Electric Company, and George Cook, owner of the Cook Electric Company.

**CARRY A
Test-O-Lite**

In Your Pocket — ALWAYS

NEW! — and the **FIRST** practical tester covering from **100 to 550 Volts A. C. or D. C.**

It's a Trouble Finder!

TEST-O-LITE, with its tiny Neon lamp, instantly detects trouble in electrical circuits, locates burnt-out fuses, light and motor troubles, faults in electrical appliances, auto spark plugs and radio sets.

Small and Convenient As a Fountain Pen

Lasts A Lifetime

Indispensable To
Electricians, Engineers, Building Super-
intendents, Home Owners

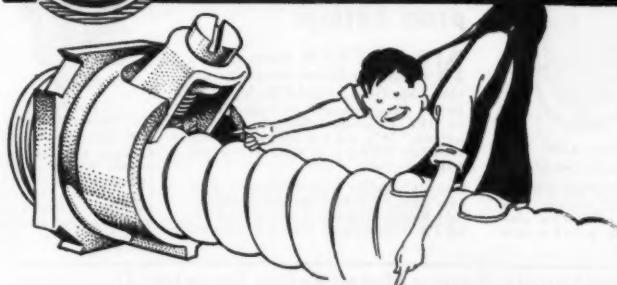
TEST-O-LITE is the product of the makers of STORM KING LIGHTNING ARRESTERS and SOLDERALL.

LIST PRICE \$1.50

L. S. BRACH MFG. CORP.
Specialists In Electrical Protective Devices for 24 Years
Newark, N. J., U. S. A. • Toronto, Canada



Tite-Bite Connectors



Just take a peek inside this

T & B No. 300 CONNECTOR

SEE THOSE JAWS? They have a straddle "Tite-Bite" grip on the Cable but do not enter between nor spread the convolutions of the cable sheath, and the filister headed screw, that sets the grip down hard, does not touch the cable.

TABOLITE protects them from corrosion.

Five sizes are ready:

Cat. No. 300—301—302—304—306

$\frac{3}{8}$ " $\frac{3}{4}$ " $\frac{1}{2}$ " $\frac{3}{4}$ " 1"

Notched locknuts come with each size.

A sure grip and a sure ground.

APPROVED BY UNDERWRITERS

Patent Pending

The Thomas & Betts Co.
MANUFACTURERS

MAIN OFFICE
15 PARK PLACE, NEW YORK CITY

FACTORY
ELIZABETH, N.J.



LET BEL SUN LITE

HELP YOU WIN PROFITS

THEATRE lighting is *not* beyond your capacities, even if you never have tackled such a job. Bel-Sun-Lite provides experts to bring you fat theatre lighting contracts.

When bids are called for, call in our representative. Go over the blue prints with him. When he gets through you will find that theatre lighting is just the same sort of bending, soldering and screwdriving you have always done.

If you are in or near one of these cities, look in the classified phone book and find our representative's name. Otherwise write us and we will see that you get all the information you need. Theatre lighting pays and is no more difficult than house or factory work.

**Belson Manufacturing Co.
804 Sibley St., Chicago, Ill.**

Atlanta, Ga.
Buffalo, N. Y.
Delaware, O.
Detroit, Mich.
Ft. Worth, Tex.
Gary, Ind.
Houston, Tex.

Indianapolis, Ind.
Kansas City, Mo.
Los Angeles, Cal.
Miami, Fla.
Minneapolis, Minn.
New Orleans, La.
New York, N. Y.

Omaha, Neb.
Philadelphia, Pa.
Pittsburgh, Pa.
Richmond, Va.
Rochester, N. Y.
St. Louis, Mo.
San Antonio, Tex.

San Francisco, Cal.
Seattle, Wash.
Tampa, Fla.
Tulsa, Okla.
CANADA
Montreal, Que.
Toronto, Ont.
Winnipeg, Man.

To Improve Wiring in Colorado

The codes and wiring committee of the Electrical League of Colorado have been busy discussing ways and means of encouraging municipalities throughout the State to take a more active interest in adequate wiring and intelligent electrical inspection. A sub-committee has been named to make a survey of conditions throughout the State and report its findings to the general committee so that action may be taken.

* * *

Florida Electragists Elect Officers

At a meeting of the Florida State Association of Electragists held in Orlando last month, T. E. Satchwell of Jacksonville was named president, and R. C. Bigby of Tampa, vice-president, to succeed themselves for another term. Lincoln Brown of Miami Beach was elected secretary-treasurer.

Members of the executive committee are as follows, the first two named being elected at this meeting: Eastern District, Geo. LaVigne, Miami; Western District, W. S. Monroe, Tampa; Central District, J. J. Newell, Orlando; Northern District, S. C. Reddick, Jacksonville.



Type 9130
Vapor-Proof Unit
STAYS VAPOR-PROOF even if both the lamp and the enclosing globe are broken.

**"Ol' Man Trouble,
Keep Out!" say
these ADAPTi Vapor-
proof Fittings**

NO MATTER how dirty, damp or fume-smothered the location, ADAPTi Vapor-Proof Fittings are as leak-proof as the conduit threads themselves. It's easy to see why trouble stays away from an ADAPTi job.

For all regular jobs of course, you can't beat ADAPTi BOXES, (Flexible-Rigid Fittings,) and ADAPTi LETS, (Standard Solid fittings).



Type 8520
Vapor-Proof
Switch Box Fitting
Gangs up in narrower space than the regular solid type. Cover-joint rubber gasketed, and spindle packed weather proof. Pat. pending.

One Supply-Source Means Better Quantity Discounts

Write for Bulletin

The ADAPTi Co.

2996 East 72nd Street
CLEVELAND, OHIO

NEW YORK CITY—A. Stone, 112 East 23rd St.
BOSTON, MASS.—E. R. Bryant, 241 "A" Street
PHILADELPHIA—Craven Electric Sales Co., 30 Bank St.



Type 8020
Standard Solid
Fitting
Can be furnished with metal cover and gasket.

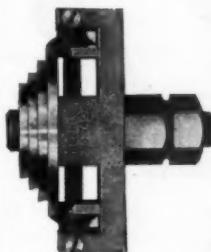


MAKES UNUSUAL PROGRESS IN THREE YEARS:—W. H. Kirk (left) and S. F. Semo, partners in the Kirk-Semo Electric Co., Houston, Tex., have built up an excellent business in a very short time. They have wired many fine residences, including fixtures, and have many larger lighting installations in buildings and churches to their credit.



ENLARGE KNOCKOUT HOLES in one minute!

Greenlee Knockout Tools will save you a tremendous amount of time when enlarging holes in switch and circuit cabinets, panel boards, etc. The job which formerly took an hour can be done in a minute or a minute and a half with these tools. And they leave a clean round hole—no filing or reaming required.



The No. 735 set of punches (to the right) will enlarge holes for $\frac{1}{2}$, $\frac{3}{4}$, 1 and $1\frac{1}{4}$ " conduit. No. 737 set has two punches for $1\frac{1}{2}$ and 2" conduit. They come in convenient leather cases.

The No. 740 Cutter (above) will enlarge holes for $1\frac{1}{2}$, 2, $2\frac{1}{2}$ and 3" conduit. Both tools require only a common wrench for operation.

Mail the coupon today!

GREENLEE TOOL CO.
ROCKFORD, ILLINOIS

GREENLEE TOOL CO.
Rockford, Ill.

Please send complete information on:

- Knockout Tools
- Electrician's Auger Bits

Name.....

Address.....

City.....

Jobber or Dealer.....

4-30



A ROLL O' TAPE

Electrical flashes gathered among the Big Wire-and-Pipe Men by

Coit A. (Duke) Smith
Field Editor, ELECTRICAL CONTRACTING

REX CAMBLIN, head of the Empire Electric Machinery Co., Joplin, Mo., specialists in mining installations, wiring and maintenance, has a feature that is decidedly different. In addition to guaranteeing the work done by his own firm, he inspects the balance of the customer's motors and wiring, then insures them against future trouble for a consideration. This service has given satisfaction all down the line, as it means first-class work, close inspection and a minimum of worry for all concerned.



R. H. Bouligne of Charlotte who specializes in large wiring work has an interesting arrangement with the Electrical Engineering College of the University of North Carolina, whereby he gives practical part-time employment to a certain number of students and permanent employment to one a year at graduation. The result is that he has about as fine an engineering department as any contractor in the country.

IT seems that strip mining calls for a lot of plain and fancy wiring, including remote control and plenty of motors and other apparatus. Steve Kemp, head of Kemp Electric Co., Pittsburgh, Kan., does more of this wiring than anything else and finds it a profitable, though exacting, job. He recently installed a specially designed "coal tipple" for loading that is the talk of the territory. Mining executives have come from all over the country to see it.

I WAS riding with Walter Barnes of the Bunn Electrical Engineering Company, New Orleans, visiting several outlying jobs. At one of these Mr. Barnes stopped to give instructions to the one man who was working there concerning another job he was to do when his present one was finished. While the job to be done was not a very large one, the instructions were necessarily lengthy and after we had driven away I asked Barnes if he expected the man to remember all he had

THE GREENLEE No. 31 SPEEDIEST of them all ~

If you want to cut the time on wiring jobs by boring holes faster, use the Greenlee No. 31 Electrician's Auger Bit. It's the speediest of them all. It has a deeply cut, double screw point which leads six turns to the inch, and the cutting edges are sharply pitched to cut and pick up the chips in quick order.

BUILT for HARD USAGE!

Rigidity and long-lasting qualities have been built into this fast-boring tool. The head is of the double-spur pattern, which means that there are two cutting edges, two spurs and two side lips, providing unusual strength and long life. It will stand up under the hardest kind of service.

There are two other electrician's bits in the Greenlee line, which are favorites with the trade—the No. 16 double-twist and the No. 21 solid center, both having single-cut heads.

Completing the line of boring tools for the electrician is the Greenlee Bit Extension which always has a positive grip on the bit shank, preventing loss of the tool while withdrawing.

*We shall be glad to send
complete information*

GREENLEE TOOL CO.
ROCKFORD, ILLINOIS

GREENLEE TOOL CO.
Rockford Ill.

Please send complete information on:

- Electrician's Auger Bits
- Knockout Tools

Name.....

Address.....

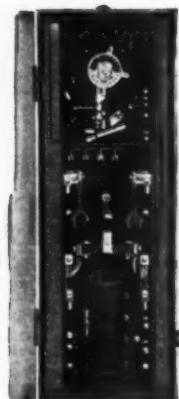
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4-30



"ON-an-OFF"
TIME SWITCH
SPECIALISTS
ARE "IN"
ON
PROFITS



RELIABLE!
AUTOMATIC!

KATO "On-an-Off" Automatic Time Switch is the latest type and most economical switch on the market today. Get these advantages:

1. Has **RESERVE POWER**. Will run for five hours after current has been disconnected or broken.
2. Extremely low first cost and maintenance cost.
3. Has clean, quick-breaking contacts without arcing.
4. Thoroughly automatic turns lights on and off for days, months without attention. Accurate . . . Sure.

**WRITE TODAY FOR
DESCRIPTIVE FOLDER**

KATO
ENGINEERING
COMPANY
 727 S. FRONT ST.
 MANKATO, MINN.

been told. He answered that all of the company's regular men were able to do the same thing because they had been trained to size up jobs themselves and therefore when they reached a piece of work they had no trouble in remembering the instructions and doing the job just as specified.

* * *

SEVERAL St. Paul contractors are so successful in their contracting business that they are able to take winter vacations. Paul Schorr just returned from a visit to California for a few weeks, and Ray Hoffman spent a month traveling through the South and spending some time in Florida. Ray also states that St. Paul contractors should look forward to good business this year. Probably he got some ideas from the south.

* * *

THE Electrical Contractors' Association of Shreveport, La., has a nice arrangement for having dinner at their weekly meeting. A kitchen and dining room are maintained in the building above The City Electric Shop. Different members are assigned to purchase a raw material and hire the help and the result is some very good home cooking.

* * *

THE Electric Service Company of New Orleans, La., had the honor of wiring the "Seatrail", the first ship of its kind in the world. The Seatrail is simply the most modern way of conveying freight over the water. The installation is a very large and important one both because of salt water conditions and because of the large machinery required for hoisting sealed freight cars bodily into the hold of the ship.

* * *

E. L. FICKIE started in the contracting business in 1914 and always made money. In 1928 he was forced to sell out on account of ill health. After a two years' rest, he is being welcomed back into the business by his former associates. Inasmuch as he could have continued resting or possibly embark in a different business, he must be pretty fond of the old game. His present location is 328 West Twelfth St., Kansas City, Mo.

* * *

THE Electric Wiring Co., Tulsa, Okla., is unusually well equipped to sell, install and build fixtures in connection with its large residence business. Even refinishing is done right in the shop. Incidentally I heard a lady who was buying something praising the fixtures this firm had sold her for her home. Dick Wise, who owns the company, told me the installation was made two years ago and she still talks about it. Evidently a satisfied customer is properly appreciated in this store.



CONCENTRATE
on this
COMPLETE
STANDARDIZED
LINE

**Soldering
LUGS**



**Large
or
Small**



**for
PROFITS!**

There's a **SHERMAN** Soldering Lug for every size job. Standard—or Heavy Duty lugs made to N. E. L. A. specifications. Give your customers a neater and better job. Order from your jobber today or write us direct, giving his name.

THE
SHERMAN
MFG. CO.
 BATTLE CREEK, MICHIGAN

Under-floor Rules for Milwaukee

An ordinance has recently been passed adding a section on under-floor raceways to the Milwaukee Wiring Code. These rules are based upon the 1930 National Electrical Code rules.

* * *

Alberta Gets Results from Sub-standard Law

For the past six months the Province of Alberta, Canada, has had in effect a statute prohibiting the sale of sub-standard electrical products. While there has not been sufficient time to make comparisons, ELECTRICAL CONTRACTING is advised by R. D. Wagner, chief electrical inspector, that his department is having fairly good results so far.

Under the act it is illegal to advertise, display or offer for sale electrical materials which are not approved by the Canadian Engineering Standards Association.

Book Reviews

Standard Wiring for Electric Light and Power—H. C. Cushing, Jr., Publisher, 341 Madison Avenue, New York (\$3.00).

The 1930 edition of Standard Wiring is the 36th edition, and is revised to conform with the regulations of the 1930 National Electrical Code.

The Law of Building Contracts and Mechanics Liens—Myron H. Lewis, C.E., LL.B., 570—5th Ave., New York—Published by Author (\$2.00).

This book is written in two parts: Part 1, Contracts, covering general nature and development; necessary elements of valid contracts; rights and obligations of owner, contractor and all others engaged in the work; delays, extras, abandonment, payments, installments, waivers, sureties; responsibility for injury; certificates, damages, arbitration; proper and improper performance and other subjects of general interest, which are applicable to almost all states. Part 2, Mechanics Liens, mainly covering New York law, and how to operate thereunder.

PROTECTION FOR Outdoor Advertising Signs

One very important part in the erection of an outdoor electric sign is the protection of the wiring. These signs are ever at the mercy of the elements. Wind, rain, snow, sleet, scorching sun rays, all will damage unprotected wires. Use Rigid Conduit that will withstand these elements. Better still—use

GARLAND CONDUIT



**GALVADUCT
LORICATED**

**GARLAND MFG. CO.
PITTSBURGH, PA.**

**WHAT EVERY
ELECTRICIAN
WANTS TO KNOW!**



READ
FOR
PROFIT



AS
EASY
AS ABC

Latest, exact in
formation, illus-
trated, covering—

Magnetism, Ar-
mature Winding, Dy-
namos, D-C Motors,
Maintenance and
Trouble Shooting,
Tests, Storage Battery,
Alternating Current, Power Factor, Trans-
formers, A-C Motors, Windings, Converters,
Switches and Fuses, Relays, Condensers, Rec-
tifiers, Meters, Power Station Practice, House
Light and Power Wiring, High Tension, Cal-
culations, Code, Electric Railways, Elevators,
Gas Engines, Auto and Aero Ignition, Radio-
Telephone, Telegraph, Motion Pictures,
Talkies, Lighting, Electric Refrigeration,
X-Ray, Welding, Pumps, Compressors, Ap-
pliances, An Electric Calculator, Practical
Mathematics, A New Electric Dictionary and
Encyclopedia of Words.

NEW!

Announcing: "Audels New Electric Library."

New and More uses for Electricity offer great opportunities to men who can handle this power correctly and accurately.

"Audels New Electric Library" is a NEW practical and theoretical course for home study and ready reference. Here are the answers to your questions, giving you the real dope that every electrician must know.

7 Books Now on Sale—5 in Preparation—The first 7 books (now ready) contain over 3600 pages with thousands of diagrams and illustrations; the remaining 5 books are in preparation.

NEW!

Beautiful, timely books for service—pocket-size, flexible;
completely illustrated; simplified, easy to read and understand. No electrician can afford to pass up this opportunity. Extremely low price; Send This Coupon Today!

BUY ON YOUR OWN TERMS

PLAN 1—ONE BOOK A MONTH

Please enter my subscription to "Audels New Electric Library" to consist of twelve volumes, price \$1.50 a volume (\$10.50 for the seven volumes now ready). Mail one volume each month and as they are received, I will mail you \$1.50 promptly.

PLAN 2—PAY 5¢ OR MORE A WEEK

Please ship me for one week's free trial the first seven volumes of "Audels New Electric Library" \$1.50 each (\$10.50 for the seven volumes now ready). Please return five dollars a week thereafter at \$1.50 a volume. If satisfied, I will mail you 50¢ or more each week as payment for the first seven books and I will pay for the last five numbers as I receive them at \$1.50 each.

THEO. AUDEL & CO., 65 West 23rd St., New York

Please ship me the NEW "Audels Electric Library" on the plan marked (X).

NAME.....

ADDRESS.....

OCCUPATION.....

EMPLOYED BY.....

SC



MODERN STORE LIGHTING PLANS

Every alert electrical contractor should have a copy of the current issue of the "WIREMOLD BUSINESS BUILDER." There is good business—and GOOD PROFITS—in selling merchants THE IDEA of keeping store-lighting up to date. Send for your copy—IT'S FREE—and get the details.

WIREMOLD

Hartford, Connecticut



BERTHOLD SWITCH and PANEL BOARDS for LIGHT and POWER

Berthold "Selectrolite" System of Lighting Control for theatres, auditoriums, lodeghalls, etc.

GUS BERTHOLD ELECTRIC CO.
555 W. MONROE ST. CHICAGO, ILL.

Steel
Cabinets



Stage
Equipment

In the Editor's Mail

(Continued from page 35)

tions which I am at the present time using.

Labor—removing old entrance.

Labor and material—bringing present circuits to basement.

Labor—delivering, uncrating and setting up stove.

Labor—returning to job of changing over, after installation is made (power men not on job when job is completed).

No. 6 3-wire armored cable to stove; cutout for stove circuit; protection for armored cable through floor.

I am located in a community where my work is scattered over a territory of about 70 miles across, and am not exactly in the center.

I find the range of jobs to run close to \$100.

My labor wage rate is \$0.80 helper and \$1.25 per hour journeyman.

Ninety per cent of our change over jobs are in houses with meter on porch and point of entrance in attic.

JESSE E. RUMERY,
Philmont Electric Co.
Philmont, N. Y.

To Keep Plaster Out of Boxes

Editor,
ELECTRICAL CONTRACTING:

In the February issue, Donald Ferguson, of Concord, Mass., has an inquiry regarding a plaster cover for 3-in. outlet boxes on new plastered jobs.

I have had this same trouble years ago, but soon found that by coiling the wires in box, then filling the box with paper, it keeps out all plaster. I believe this can be done in less time than covers could be put on and taken off, and there is nothing to interfere with a smooth and straight plaster job.

It only takes about one "jab" of a screw-driver, and plaster and paper are cut out, leaving the wires and box clean.

If plans are not furnished, I make a floor sketch, and located all outlets on same, with height, as follows, to bottom of box:

Switches near knob side and near the door, 4 ft. high, except kitchen and bath-room, these two rooms 6 in. higher.

Convenience outlets, where wanted,

FAST!!



A-1 Wire Connectors



Jiffy Connectors make a stronger, safer connection. There are millions in use. Contractors are familiar with the simplicity and dependability of Jiffy Wire Connectors. Approved by the Underwriters Laboratories and Factory Mutual Laboratories.

Patent No. 1835293—1736879
Others pending.



One size for combinations of No. 14, No. 16 and No. 18, solid or stranded, up to No. 14 and 2 No. 18, or equivalent.

Samples upon Request

JIFFY
WIRE CONNECTOR
COMPANY
HACKENSACK N. J.

General Sales Offices:
G. Denn Montgomery, Jr.
522 Broadway, New York City
Phone Canal 7533

Beating Competition with Brains

Competition is tough in the electrical contracting business these days; and every day it gets worse. Successful contractors have found they can beat fly-by-night competition best by using their brains, and by educating their responsible employees. You can help your head men to keep abreast of the times and save you money by sending each his own copy of ELECTRICAL CONTRACTING.

"DETROIT" RUBBER COVERED WIRES

(Reg. U. S. Pat. Office.)

RUBBER INSULATED
WIRES AND CABLES
LAMP CORDS
AUTOMOBILE WIRES
PARKWAY CABLES
LEAD ENCASED
RUBBER INSULATED
WIRES AND CABLES
UNIDUCT ARMORED
WIRES
FLEXIBLE METALLIC
CONDUIT

Detroit Insulated Wire Company
Detroit, Mich.

Division of General Cable Corporation

at following heights: living rooms, 12 in.; bed rooms, 24 in.; bath-rooms, same as switch; kitchen, for flat iron, at least 5 ft., sometimes 6 ft.; breakfast rooms, where it is a "convenience outlet"; light outlets on side wall in most cases 5 ft. 6 in., except in bathroom, which is 4 ft. 9 in. to 5 ft., according to wall cabinet.

In this way I have no trouble in locating lost outlets.

D. A. DAVENPORT,
Davenport Electric Co.
Utica, N. Y.

* * *

Bonding of Grounding Conductor

Editor,
ELECTRICAL CONTRACTING:

In a recent number of your magazine [February] there was broadcasted a request for prices on an installation for ranges as laid out in this article. In a side picture there was shown a close-up view of the switch and grounding arrangement and all those submitting bids were requested to follow the sketches shown. The one that drew this sketch overlooked the last sentence of Par. 907 d, Page 133 of the 1930 National Electrical Code.

This paragraph requires that the grounding conductor be bonded to its protective conduit of armor at both ends.

JAS. M. EVANS,
Electrical Engineer,
Board of Fire Underwriters
of the Pacific.

Los Angeles, Cal.



You're not reaching the peaks of profit if you're not using IDEAL Universal Connectors on your wiring joints—for, both roughing in and fixture work.

IDEALS screw on the wires in a "split second" and make a better mechanical and electrical joint than is possible otherwise. Millions are used today in the country's finest buildings and largest industrial.

Fully Approved by Underwriters and Factory Mutual Lab. Recommended in N.E.C.

Fully patented. No. 1,700,885, issued Feb. 6, 1929. Infringements of "Screw on" connectors will be prosecuted.

Bowlus Boring Machine takes all the slow hard work out of joist boring. Pays for itself first working day. Only \$13.50 with 2 bits.

Ideal Commutator Dresser Co., 4-30
1041 Park Ave., Sycamore, Ill.

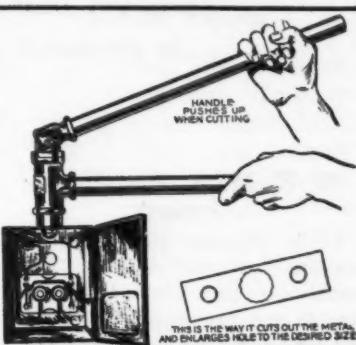
- Please send me one trial carton of 100 "Standard Universal" Connectors at \$3.25.
- Please send me a free connector.
- Full information on Bowlus Boring Machine.

Name.....
Address.....
City..... State.....
Your Jobber.....

HAS HAD A LOT OF THEATER WORK:—The Gaddis-Fentress Electric Co., Oklahoma City, Okla., is an old firm that has had its share of all kinds of wiring. Recently some good theater jobs have been finished. The partners are George A. Gaddis (left), and S. E. Fentress.

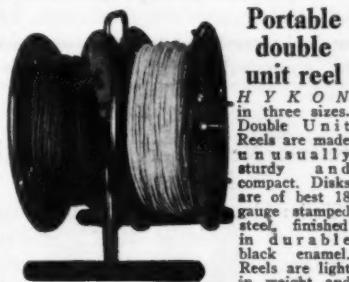
HyKon

announces
A Knock-Out Trimmer



Should be in every electrician's kit . . .

This new HYKON Knock-Out Trimmer is unexcelled for enlarging the knockout openings in outlet, junction and ceiling boxes and openings in fuse and switch cabinets. No parts to break or get out of repair . . . operates on the inside or outside as required. It will cut from the lightest to the heaviest metal and makes an unusually clean and burless hole. Convenient size.



Portable double unit reel

HYKON in three sizes. Double Unit Reels are made unusually sturdy and compact. Disks are of best 18 gauge stamped steel, finished in durable black enamel. Reels are light in weight and

can be easily carried about from job to job. Enables you to manage large coils of wire easily and quickly.

Saves its cost on one job . . .

This HYKON Boring Machine is the fastest hand power machine on the market! Has a new exclusively patented one-piece self-centering Bit Chuck, a decided improvement over the old type. Telescopic standard adjustable from 4 1/2 to 13 1/2 feet. Easy to operate and will last many years. Saves you time and money.



Mail this today

The HyKon Mfg. Co. Ohio

Please send literature and special introductory discounts on HYKON
 KNOCK-OUT TRIMMER
 BORING MACHINE
 WIRE REELS

Firm

Name

Address

City..... State.....

Manufacturers News

A department for the announcement of activities of manufacturers that are of interest to contractors, such as changes in executive personnel, branch offices, new products, etc.

N. E. M. A. Resolutions Passed

Trade practice rules for six branches of the electrical manufacturing industry including carbon, flexible and heater cord, outlet box and conduit fittings, molded products, manufactured electrical mica and vulcanized fibre has been approved by the Federal Trade Commission. Resolutions covering these rules were submitted by members of N. E. M. A. at the trade practice conferences held at Washington on October 10, 1929.

The commission also authorized a committee on trade practices to investigate whether the resolutions are being observed and to cooperate with the commission in making rules effective.

* * *

Steffen New C-H Cincinnati Manager

Cutler-Hammer, Inc., Milwaukee, Wis., has appointed M. C. Steffen manager of its Cincinnati office, replacing R. I. Maujer, who resigned. Mr. Steffen was formerly with the St. Louis office of Cutler-Hammer, Inc., for five years.

* * *

Rigid Conduit Booklet

The 16-page illustrated booklet entitled "Safeguarding Wiring Systems for Buildings" has been prepared by the Rigid Conduit Section of the National Electrical Manufacturers Association for distribution to architects, engineers and electrical contractors. The booklet which sets forth the merits of rigid conduit as a means of providing maximum protection for wiring systems, opens with a brief history of the origin and development of rigid conduit, following which is a description of its value for protecting conductors from injury during construction. Two chapters are devoted to adaptability of

rigid conduit to various forms of occupancy and to the relative costs of wiring systems.

Copies of this booklet may be had by applying to George H. Sicard, secretary of the Rigid Conduit Section, 603 Gas & Electric Building, Utica, N. Y. * * *

New Policy on Pittsburgh Reflector Magazine

Permafllector Magazine, a publication issued by Pittsburgh Reflector Co., Pittsburgh, Pa., will hereafter be published monthly instead of bi-monthly as previously. Each issue will be devoted to a discussion of one phase of lighting including information and illustrations that will be of benefit to electricians, engineers and others interested in better lighting.

Grounding Notes

Hubbard & Company, Pittsburgh, Pa., distributors of Copperweld ground rods, has just published the first copy of "Grounding Notes," a pamphlet that will be issued every other month hereafter.

* * *

The Electric Machinery Manufacturing Co., Minneapolis, Minn., has moved its Detroit office to 10-230 General Motors Building.

* * *

The American Circular Loom Company, New York City, has added C. H. Van Der Bloom to their sales organization. Mr. Van Der Bloom will have his headquarters in Cleveland and will cover the state of Ohio and Erie, Pa.



STANLEY WORKS FORMS NEW COMPANY:—The Stanley Electric Tool Co., New Britain, Conn., has recently been organized as a subsidiary of The Stanley Works for the manufacture and sale of Stanley Electric Tools, including electrically operated drills, screw drivers, bench grinders and aerial grinders formerly manufactured by The Stanley Rule & Level Plant; Stanley-Crowe safety saws and Stanley Ajax hammers. The officers of this new company are L. M. Khouse, president; Cedric Powers, vice president in charge of production; H. W. Blackman, secretary; L. W. Young, treasurer, and R. W. Chamberlain, sales manager. The officers, together with the salesmen, are shown above at the sales conference held in New Britain during the first two weeks of January. Sales and service stations will be installed immediately in New Britain, Conn., New York, Philadelphia, Cincinnati, Detroit and Chicago.

A BIG MONEY SAVER

Eliminates triple handling—unwinding—measuring and rewinding wire, thus saving time and money. Manually operated—reels wire into neat coil, automatically counting and registering number of feet. Strongly built of heavy selected materials so as to last a lifetime.

It Pays for Itself

Send for Bulletin.
Write us or your jobber.

Minneapolis Electric
and Construction Co.

90 S. 12th St.
Minneapolis Minn.

OUT-DOOR LIGHTING FIXTURES

Apartment Buildings
Public Buildings
Bungalows
Churches
Schools
Garages
Country Clubs
Warehouses
Residences

A FIXTURE FOR EVERY OUTDOOR PURPOSE

Cast Iron or Bronze

Send for our

New Catalogue No. 30
200 Illustrations

For particulars consult your
ELECTRICAL JOBBER
(He knows the HERWIG Line)
or write us direct.

The
Herwig Company
MANUFACTURERS
Established 1908
1753-59 Sedgwick Street
Chicago, Illinois, U.S.A.

Jefferson Electric Changes Sales Personnel

Jefferson Electric Company, Chicago, Ill., announces the following changes in its sales personnel:

L. H. Byrne, who previously traveled Wisconsin, Minnesota, North Dakota and part of Canada, has been appointed acting western sales manager and A. H. Firnhaber will succeed Mr. Byrne, taking over his territory.

The northeastern part of New Jersey and the southeastern part of Pennsylvania will be handled by E. B. Charlton.

R. W. Bowen has been appointed to cover Virginia, Maryland and North Carolina; J. A. Ryan eastern New York and J. B. Sullivan will help cover the Chicago territory.

* * *

The Marbelite Art Products Company, Chicago, Ill., has just issued catalog No. 9 descriptive of Marvelite products.

* * *

The Anaconda Wire & Cable Company of California announces the removal of its San Francisco office and warehouse to 360 Ninth St.

* * *

Westinghouse 1929 Sales Exceed Previous Year

The annual report just issued by Westinghouse Electric & Mfg. Co., Pittsburgh, Pa., shows total sales amounting to \$216,364,588 as against \$189,050,302 for 1928.

A decided increase was also shown in the volume of unfilled orders, which were \$62,025,399 for 1929, a gain of approximately \$15,000,000 over the previous year.

* * *

Fred M. Kimball

Fred M. Kimball, advisory manager of the motor division of the industrial department of the General Electric Company, died February 5, in Lynn, Mass. Mr. Kimball entered the employ of the General Electric Company, New England district, in 1891, and in 1898 was made manager of the small motor department at its formation. Prior to that time he was

The Jiffy Line

Established 1915

15 years old and still going strong



Get Jiffy Tools on approval. We guarantee satisfaction. They cut repair costs and increase your profit. We will send you bulletin describing complete line of Jiffy Tools.

**Save Time,
Labor, Money**

*The Job in a Jiffy
with a Jiffy*

**PAUL W. KOCH
& COMPANY**
25 So. Wells St., Chicago

4-36



Intercommunicating Telephone Systems save time and are more efficient and less expensive than talking through a switchboard.

Holtzer-Cabot Intercommunicating Systems are moreover dependably and reasonably priced.

Send for Catalogue.

The Holtzer-Cabot Electric Co.
Executive Office and Factory
Boston, Mass.

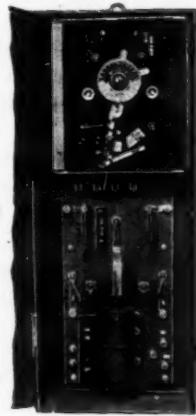
| | | |
|---------------|------------|-------------|
| Chicago | New York | Baltimore |
| Philadelphia | Pittsburgh | Cleveland |
| Syracuse | Detroit | Minneapolis |
| San Francisco | | Los Angeles |

PIONEER MANUFACTURERS OF
COMPLETE SIGNALING SYSTEMS

New Electrical Products



Illuminating glassware with hangers designed for lighting stores, offices, hotels, restaurants, club-rooms, churches, auditoriums and schools has been designed by Inland Glass Works, Inc., Chicago, Ill., and is fully described and illustrated in catalog No. 15. The illustration shown is "LaSalle" Moderne—No. "90" line. This unit is furnished with cast ceiling plate and fitter crown, with strap, screws and knurled nuts, single screw type hanger and deep flange canopy with knockout and diamond chain. The finish of hanger can be supplied in either bank bronze or antique silver, and hanger is furnished with Mogul socket. Globe can be furnished in snow white glass, cased glass or crackled glass.



An automatic on-and-off 25 amp. double pole electric wound time switch has been placed on the market by Kato Engineering Company, Mankato, Minn. The cabinet is of pressed steel, $4\frac{1}{2}$ in. deep, $7\frac{1}{4}$ in. wide and 17 in. high, finished in black crackle finish lacquer, equipped with catch that can be padlocked, and built to permit running in of conduit. The switch is operated by clock movement, specially designed with jeweled balance wheel and spring operated safety device which, it is claimed, continues to run clock perfectly for three hours in case of current interruption. It has a magnetically operated, winding mechanism and switch proper is operated by an electric solenoid with current across the line only at time of operation. Knife type contacts are used to make and break the circuit. This switch is available for every purpose in any arrangement of circuits and operations, ranging in capacity from 10 to 150 amp.



Vulcanized fibre tubing conduit in pipe sizes for in-the-wall or under-the-plaster installations to carry radio wires is now being manufactured by the Brandywine Fibre Products Co., Wilmington, Del. The conduit is made in straight lengths about 34 in. long with threaded sleeves. Long sweeps are used for elbows, being made of such a size on the inside as to make a slip joint over the straight running lengths.



A meter service breaker has been placed on the market by the Trumbull Electric Mfg. Co., Plainville, Conn. The dimensions of the breaker box are 11 in. long, $6\frac{1}{4}$ in. wide and $3\frac{1}{2}$ in. deep. The switch is 30 amp., 125 volts, meter test type with two wire solid neutral. It is front operated, quick make and break action with insulated handle and self heating bimetal operating latch on breaker preventing fusing on any overload current that can be obtained at rated voltage.



The Marbelite Art Products Company, Chicago, have brought out a series of asymmetrical all-metal reflectors in standard shapes, made of etched rayalum, polished rayalum, chromium plated. These units are made both rigid and flexible, supplied with flush mounting ring. The flexible type is fitted with ball and socket joint, crowfoot base and cord with separable plug.



A new line of competitive type removable ring porcelain receptacles has been announced by the Arrow Electric Division of the Arrow-Hart & Hegeman Electric Co., Hartford, Conn. This line comprises of Nos. 7718 with screw terminals; 7720 with concealed terminals; 7721 with No. 14 wire leads and 7722 with No. 18 wire leads.



Kellems Products, Inc., 6 Varick St., New York, has developed a small cable grip known as "Kellems Junior" for pulling wires through branch circuit conduits. The grips are adjustable to take two or more rubber covered wires. The wires are held together and slipped into the grip which holds them with an increasing firmness as the pull is increased.

Color Lighting Equipment For Interiors and Exteriors



Color Hoods
For lamps up to 60 watts.
(Full and half types.)



Laco Color Hoods
For lamps 75 w. to 500 w.
(Single or two tone effects.)



Color Plates
For flood lights, spots, etc.
(Also square and oblong in shape.)



Color Cylinders
For street lighting units,
wall pockets and decorative
lighting effects.
(Made semi or full circular.)

Headquarters for Color

Ask for Illustrated Pamphlet
"PROFITS FROM COLOR"

REYNOLDS
ELECTRIC COMPANY

MANUFACTURERS RECO SIGN FLASHERS
TRAFFIC CONTROLS, SMALL MOTORS, ETC.
2623 W. Congress St. - - Chicago, Ill.

affiliated with the Merchants Electric Light Company of Boston, the American Electric Illuminating Company and the Electrical Development & Manufacturing Co. He was an associate member of the A.I.E.E., a member of the N.E.L.A., and an Edison Pioneer and honorary member of the Providence Engineering Society. Mr. Kimball was 68 years of age.

* * *

Klein Heads A. L. E. A.

B. F. Klein, president of the Kayline Co., Cleveland, Ohio, was elected president of the Artistic Lighting Equipment Association at its annual meeting held in Washington, D. C., February 10 to 15.



B. F. KLEIN L. L. READING

Crescent Hole Cutter



Shank fits standard
brace. Tool holder
and body are made
of steel. Cutter ad-
justment $\frac{1}{8}$ " to $\frac{1}{2}$ "
holes.

Reducing bush-
ings for center guide
furnished for $\frac{3}{4}$ " and
 $\frac{5}{8}$ " conduit knock-
outs.

Contractors'
Price \$3.00

Mullenbach Elec. Mfg. Co., Inc.
1116 E. 16th St. Los Angeles, Calif.

L. L. Reading, manager of the electrical department of Franklin Pottery, Lansdale, Pa., was elected vice president and Charles L. Benjamin was reelected managing director.

The board of directors comprise of Frank D. Gill, Gill Glass & Fixture Co., Philadelphia; E. W. Commyer, National Lamp Works of the General Electric Co., Nela Park, Cleveland; C. A. Bridges, Moe-Bridges Co., Milwaukee, and Herman Plaut, L. Plaut & Co., New York.

* * *

Rattan Buys East Haven Specialty Company

The Rattan Manufacturing Co., New Haven, Conn., has purchased the East Haven Specialty Co., manufacturers of Handy-Andy snap-on garage and portable utility lights. This line will henceforth be manufactured by the Rattan company in connection with its line of Rattan conduit fittings and Marr solderless wire connectors and will be distributed through Hatheway & Company, Inc., 225 Varick St., New York, general sales agents.

MARTIN



Portable
Vise Stand
and
Pipe Bender



Made in
Two Sizes
— small stand
with chain vise
2 in. cap., with
hinged vise $2\frac{1}{2}$
in. capacity.
Large stand
with chain vise
4 in. cap., with
hinged vise $4\frac{1}{2}$
in. capacity.

H. P. MARTIN & SONS
Owensboro, Ky.

Do away with that
make-shift bench
carry the
MARTIN stand
anywhere... A gen-
uine time saver for
bending pipe or conduit
up to $2\frac{1}{2}$ in. Sold on
consignment. Write
today.

**the
Spring's
the
thing!**



Paine Spring Toggles work in any position in attaching your electrical fixtures to any hollow wall, ceiling or floor. Electrical contractors everywhere are using Paine Toggles because the exclusively patented spring feature makes installation so easy and speeds up the work—saving time and money. Order today from your jobber or write us direct giving us his name.

The Paine Company
2949 Carroll Ave., Chicago, Ill.
79 Barclay Street, New York City

**P A I N E
S P R I N G
T O G G L E S**

KRUSE



Switch Box Supporting
Strips with or
Lath Holders

16 $\frac{1}{2}$, 18 $\frac{1}{2}$, 20 $\frac{1}{2}$, 22 $\frac{1}{2}$, 24 $\frac{1}{2}$, 26 $\frac{1}{2}$ in. Lengths

Used by Contractors every-
where. A leader for ten years.
Stocked by all leading job-
bers. Millions of sets
used yearly.

WE ALSO MAKE
Kruse Bar and Old Work Hangers
Peerless Type A Old Work Hangers
Non-Metallic Sheathed Cable Straps
Fitz-M-All Outlet Box Hangers
"Ready" Service Fittings

WRITE
For Prices and Literature
Mid-West Metal Products Co.
MUNCIE, INDIANA

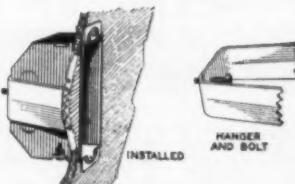
New Electrical Products



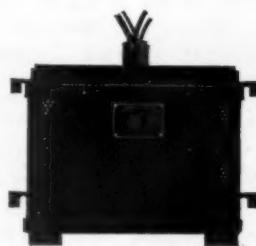
An insulated, non-breakable screw driver, known under the trade-name of "shok-pruf", made of warranted steel and insulated for 2200 volts, is being manufactured by Moline Manufacturing Co., Moline, Ill. This screw driver has a 7 in. round handle with heavy protecting shoulder to prevent the hand from slipping onto the blade. The 7/16 in. drivers range in blade length from 2 in. to 18 in. The driver is designed for heavy duty work and can be pounded or used as a chisel.



The F. W. Wakefield Brass Co., Vermilion, Ohio, announces a suspension unit for 1000-watt lamps, made with a low bowl brightness for the elimination of glare, together with a safe support for the 25-lb. globe. Twelve other new variants of the Wakefield office lighting unit are also offered, including both ceiling and suspension units.



Mid-West Metal Products Co., Muncie, Ind., announces a new switch box hanger. The hanger, a new piece of rust resisting steel, is placed around the box and fastened by means of a bolt from the back of the box. Hanger and box are then forced through outlet hole of exact size of box until sides of hanger spring free on inside of wall board. By further tightening connecting bolt box is firmly clamped in the wall.



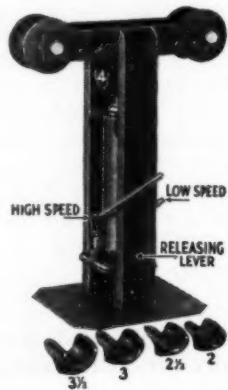
Standard Transformer Co., Warren, Ohio, are manufacturing air-cooled transformers, known as type MD, in sizes from 5 KVA to 25 KVA capacity. The cores of this transformer are high silicon 29 gauge transformer steel, sheared with the grain, and re-annealed. The windings are made direct on insulated cores, using varnish treated cloth, pressboard and other insulating materials. The cores and coils are preheated, dipped in insulating baking varnish and baked. The case is made of perforated metal mounted on a structure of angle and channel iron, equipped with conduit nipples for enclosed wiring, suitable for wall, platform or floor mounting.



Horolectrical Corporation, 216 West Fourteenth St., New York City, is now manufacturing a time switch in two models, one hand wound with an 8-day movement, the other electrically wound. This switch is approximately 11 in. high, 5 in. wide and 4 in. deep; has universal motor operating on 110-125 volts, 60 amp. capacity. It is finished in black baked enamel.



A show window reflector specifically designed for use with 150-watt lamps is now being marketed by Reflector & Illuminating Co., Chicago. This reflector is a companion to the one placed on the market a few weeks ago by this company, the only difference being its shape. It was especially designed for show window lighting installations where 150-watt lamps are used.



Improvements on the No. 4 Chicago 30-ton hydraulic pipe bending machine have been announced by Gustave Lidseen, Inc., Chicago, Ill., as follows: The jack handle has been turned to operate from the side, permitting operator to make any angle bend without getting in way of pipe; it has two speeds, high speed raising pipe up to contact with rollers quickly and slow speed permitting a steady and effective pressure on pipe, bending it to angle desired.



A complete line of No-Draft fan guards and fan fixtures has been announced by the No-Draft Fan Fixture Co., Chicago, Ill. The fan guard is attached to any ordinary electric fan to eliminate the draft. The fan fixture is incorporated in a lighting fixture and can be used with or without light.

SILVEY HICKEYS*Won't Slip, Crush nor Kink*

Made in $\frac{1}{4}$ "
 $\frac{3}{8}$ ", and 1-in.
sizes. Patented.

A deep groove on the inside of the bend removes pressure where pipe is shortening and thickening; allows it to flow outward instead of pushing it inward. Compare its work with work done by any other bicker. Get a set. Your money back if you're dissatisfied for any reason. Thousands sold without complaint. Electricians swear by it.

Ask Your Jobber

Jobbers everywhere have Silvey Hickories in stock. If yours will not supply you, we will ship direct.

SILVEY PIPE BENDER COMPANY
2125 Brighton Ave. Kansas City, Mo.

E-Z WIRE STRIPPER**A HANDY TOOL**

This inexpensive tool strips wire of 10 to 20 gauge 20 times faster than usual methods.

A MONEY BACK GUARANTEE with every E-Z Wire Stripper. Send for yours now.

\$5.00 LIST

PYRAMID PRODUCTS CO.

2315 South State Street Chicago, Ill.

RAWLPLUGS
Fibre Screw Anchors
HOLD SCREWS FAST

THE RAWLPLUG CO., INC.
66 West Broadway,
New York City

Branches in 25 Cities
Write for Bulletin B-201

Concrete Inserts Save Time in Conduit Installation

Pound them in the form; the concrete holds them solid; hang the pipe below.

Send for Bulletin or Sample

Commonwealth Electric Co.
417 Broadway, St. Paul, Minn.

The New York office of the Trumbull Electric Mfg. Co., Plainville, Conn., is now located at 803 Lincoln Building, 60 East 42nd Street.

* * *

The Beardslee Chandelier Mfg. Co., Chicago, Ill., has just published advertising folder No. 5 describing and illustrating Beardslee Shade-Lyte and three circulars covering series 20, 30 and 40 Shade-Lyte.

* * *

S. H. Couch Company, Inc., Norfolk Downs, Mass., has just published bulletin No. 90 entitled "Private Telephone Systems" superseding bulletin No. 80.

* * *

New offices and warehouse have been opened by the Indiana Rubber & Insulated Wire Company at 620 West Jackson Blvd., Chicago, Ill. A complete stock of Paranite rubber covered and lead encased wires and cables, armored cables and ignition cables will be carried at all times. Frank R. Dolan is manager.

* * *

Crouse-Hinds Company, Syracuse, N. Y., has published catalog 312 covering floodlights and industrial lighting units; catalog 311 covering airport and airway lighting equipment and bulletins 2206 on football field lighting, 2210 on tennis court lighting, 2211 on gasoline service station lighting and 2137 on floodlighting for recreation.

* * *

Square D Company, Detroit, Mich., announces the appointment of A. S. Fraser as representative in the Seattle district succeeding R. D. Flatland.

* * *

Bulletin 166 describing warm air furnace fans has just been published by the Wagner Electric Corporation, St. Louis, Mo.

* * *

A bulletin entitled "Lighting Equipment for Airports, Airport Hangars, Landing Fields and Airways" has just been published by the Benjamin Electric Mfg. Co., Des Plaines, Ill.

**A Patented Chain Vise with many improved features**

ARMSTRONG BROS. Patented Chain Vise combines maximum capacity and strength with minimum weight. It is light and compact, goes into tool bag easily, attaches quickly, provides full support on top, is quiet in action. Special features include: (1) Drop-forged 1-piece jaws which give full support to conduit, holds firmly without bending. (2) Drop-forged base. (3) Drop-forged Handles. (4) Alloy Steel Screw. (5) Hardened Nut. (6) Proof-tested Chain.

Write for Catalog P-10 showing a full line of improved pipe tools.

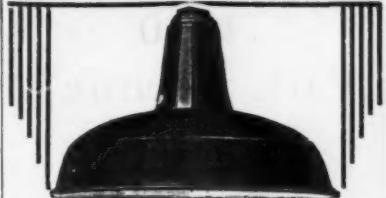
ARMSTRONG BROS. Tool Co.

"The Tool Holder People".

341 N. Francis Ave., Chicago, U. S. A.

Top view of 1-piece jaw showing solid center which prevents conduit from bending.

ARMSTRONG BROS.
CHICAGO



**MORE MONEY!
ON
EVERY
INSTALLATION**

Combined with complete customer satisfaction make Jackson Reflectors ace high with Electrical Contractors everywhere. Low prices and high quality assure your customers of the best. And there's a type and size for every installation. Write for bulletin and new low prices **AT ONCE**.

JACKSON
ELECTRICAL COMPANY
910 W. VAN BUREN ST.
CHICAGO, ILL.



**"1120
Park Avenue"**
(Apartment House)
New York, N. Y.

Marcus Brown
Owner and General Contractor
George F. Pelham Architect
Brown Electric Co.
Electrical Contractor

Another up-to-date apartment
building with up-to-date

**WEBER DEPENDABLE
WIRING DEVICES**
Henry D. Sears
General Sales Agent
80 Boylston St. Boston, Mass.

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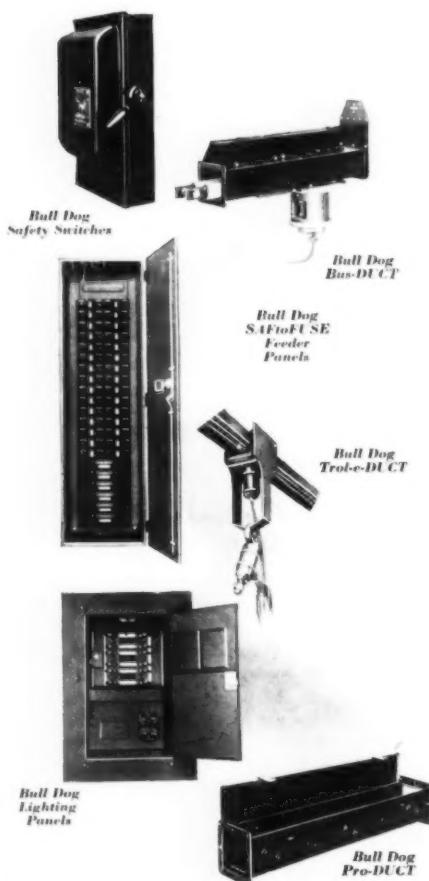
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